DOCUMENT RESUME

ED 023 911 08 VT 007 246

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Clusters of Tasks Performed by Merchandising Employees Working in Three Standard Industrial Classifications of Retail Establishments. Final Report, No. 20.

Idaho State Board of Vocational Education, Boise.; Idaho Univ., Moscow. Coll. of Education.; Washington State Coordinating Council for Occupational Education, Olympia.; Washington State Univ., Pullman. Dept. of Education.

Spons Agency-Office of Education (DHEW), Washington, D.C. Bureau of Research.

Bureau No-BR-7-0031

Pub Date Jun 68

Grant-OEG-4-7-070031-1626

Note-71p.

EDRS Price MF-$050 HC-$365

Descriptors-Curriculum Planning, *Distributive Education, Employee Attitudes, Employees, Individual Characteristics, *Job Analysis, *Merchandising, Occupational Clusters, *Retailing, Surveys

The study assembled up-to-date facts by questionnaire about major types of tasks actually performed by merchandising employees working in department, variety, and general merchandise stores in King and Pierce Counties, Washington. This population closely matched the national percentages, and responses of 609 employees provided data for the study. Data were obtained regarding 12 categories of work performed by supervisory and non-supervisory personnel: selling, stockkeeping, checkstand operation, receiving and marking merchandise, delivery, keeping records, computing, display, advertising, buying, pricing, and merchandise control. Substantial percentages of non-supervisory personnel perform the tasks of selling, keeping and counting stock, operating the checkstand, and receiving and checking merchandise. Substantial percentages of supervisors regularly perform all the activities of non-supervision as well as tasks associated with keeping records, planning and arranging displays, buying, pricing and controlling merchandise. Data suggest that women have limited opportunity for early employment in the supervisory category, but proportions of older women supervisors indicate opportunity is enhanced for women who persist in a retailing career. Only limited opportunity exists for non-college youth to move into supervisory positions. (MM)

BR 7-0031
PA-08

FINAL REPORT

Project No. OE 7-0031

Contract No. OEG-4-7-070031-1626

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CLUSTERS OF TASKS PERFORMED BY MERCHANDISING EMPLOYEES WORKING IN THREE STANDARD INDUSTRIAL CLASSIFICATIONS OF RETAIL ESTABLISHMENTS

JUNE, 1968

ED023911

U.S. DEPARTMENT OF
HEALTH EDUCATION AND WELFARE

Office of Education
Bureau of Research

VT007246

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by

Kenneth Arthur Ertel

June, 1968

The research reported herein was performed pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.

University of Idaho, College of Education
Idaho State Board for Vocational Education
Washington State University, Department of Education
Washington State Coordinating Council for Occupational Education

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ACKNOWLEDGEMENTS

Assistance received in planning and carrying out this study has placed the writer in debt to many persons.

I am sincerely grateful to Professor Herbert Hite, who helped conceptualize this study.

I wish to acknowledge the helpful advice received from Professors Wilmer W. Baer and William H. Crawford.

I wish to acknowledge the financial support of the Department of Health, Education, and Welfare, U.S. Office of Education.

Finally, I am deeply indebted to the retail store managers and employees who willingly provided the time and information needed to complete this study.

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SUMMARY

Purpose

This study assembled up-to-date facts about major types of tasks actually performed by merchandising employees working in three Standard Industrial Classifications of retail establishments. Those classifications are department stores, variety stores, and general merchandise stores. By questionnaire, facts were obtained regarding twelve categories of work performed by supervisory and non-supervisory personnel. These categories are selling, stockkeeping, checkstand operation, receiving and marking merchandise, delivery, keeping records, computing, display, advertising, buying, pricing, and merchandise control. Percentages of employees in each classification performing each category of work are listed in rank order.

Procedure

A stratified random sample of merchandising division employees was drawn from all stores in SIC 531, SIC 533, and SIC 539 in King and Pierce Counties, Washington. Percentages of stores and employees in each strata of this population closely matched the national percentages. The sample was drawn with a confidence level of .95. The error in proportion is not greater than 5 percent. Responses of 609 employees provided data for this study.

Separate questionnaires for non-supervisors and supervisors were prepared so performance of 225 activities constituting twelve major types of tasks could be compared.

Results

Data indicate that substantial percentages of non-supervisory personnel perform the tasks of selling, keeping and counting stock, operating the checkstand and sales register, and receiving and checking merchandise.

Data indicate that substantial percentages of supervisors regularly perform all the activities of non-supervisors. Substantial percentages of supervisors also perform tasks associated with keeping accounts and records, planning and arranging interior displays, buying merchandise for resale, pricing and controlling merchandise. Tasks of computing are performed by both supervisors and non-supervisors.

So few respondents indicated performance of activities in the major task of planning, preparing, and placing advertising that it must be considered a small part of the employees' work at either the supervisory or non-supervisory level. The data indicate no significant difference between the types of tasks performed in department stores and the limited price variety stores. However, there is a higher degree of job specialization in the department stores and variety stores than in general merchandise stores.

This study also obtained data concerning certain personal and job related characteristics of the retail employees for the purpose of determining possible relationships that might exist between these characteristics and the types of tasks performed. Educational background, sex, and job mobility characteristics were correlated with types of tasks performed.

Data on the sex, age, and education suggest that women have relatively limited opportunity for early employment in the supervisory category. However, the larger proportions of women supervisors in the upper age bracket indicate that opportunity for employment as supervisors is enhanced for women who persist in a retailing career.

The data indicate only limited opportunity for non-college-bound youth to move from non-supervisory into supervisory positions. The average number of years of education of all supervisors is 14.82 years and in the age group under thirty years the average is 15.46 years of education. Apparently employment practice in the retail industry is to hire college graduates for supervisory jobs.

Data indicate that, at present, relatively few non-supervisors move from one type of work to another in the firm, while horizontal job mobility for supervisors is a function of an on-the-job training program.

There is no evidence that participation in distributive education without post high school education enhanced opportunity for employment as a supervisor.

In high school programs aimed at preparing non-college-bound youth for entry positions in the merchandising divisions, the primary responsibility appears to be preparation of youth with the competencies to perform the selling and sales-supporting function. It is essential to structure the high school distributive education curriculum so that ability to perform sales and sales-supporting tasks be considered a basic training objective.

INTRODUCTION AND RATIONALE

Purpose and Rationale

This research was undertaken to obtain data needed to design distributive education curricula for non-college bound youth which are consistent with current and near future occupational requirements. These occupations constitute one of the second largest and fastest growing fields of employment. Current developments in distribution are resulting in increasingly rapid changes in occupational opportunities and requirements. Each year increasingly larger percentages of existing occupational competencies become obsolete. Employment and promotion require capabilities consistent with changing job patterns and requirements.

Educators urgently need to identify types and combinations of knowledge most likely to make youth employable in these changing situations.

The philosophic premise of this research is that occupational freedom involves both informed choice of alternatives and competence to work effectively. The economy needs *constantly larger numbers of workers possessing* new capabilities. But youth can evaluate only those occupational choices that they perceive. They are free to perform only the kinds of work for which they acquire competence. Choice and acquisition of competence may be needlessly impaired by limited outlooks and motivations. For these reasons studies of occupational perceptions and aspirations have been analyzed and related to this study.

This research was undertaken as one phase of a multiple faceted project designed to identify clusters of knowledge and capabilities common to a wide range of vocations. Other occupations studied included ten major building trades, office, electronic technicians, food services, child care, and agriculture.

A major purpose of the total project was to identify clusters of knowledge and competencies most likely to maximize the career-long occupational opportunity, competence, and choice of non-college-bound youth in an evolving technological society. The studies were designed to provide data on (a) combinations of major tasks groups of workers presently perform, (b) combinations of major tasks performed on entry jobs, and (c) combinations of tasks generally performed by workers with various degrees of experience, and (d) some data on five-year combinations of worker experience.

Objectives of This Study

The major objective of this study was to obtain facts about what major types of tasks are actually performed in major retailing occupations and to identify the knowledge most needed to prepare students for such work. In order to realize this objective, the writer:

1. Designed a questionnaire to identify the major tasks and associated knowledges necessary for successful employment in the merchandising operations of modern retail firms.
2. Analyzed the knowledges necessary to perform the major tasks in the retail field in order to identify clusters of concepts unique to each category of employment studied.

Hypotheses

1. There are combinations of knowledge common to performance of a wide range of tasks commonly classified within major categories of retailing work at the non-supervisory and supervisory levels.
2. There are differences in levels of knowledge essential for the performance of specific tasks for supervisory and non-supervisory personnel.
3. There are some differences in the degree of specialization in the activities performed in large, medium, and small stores.

Limitations

This study is limited to an analysis of the types and levels of knowledge essential for performing the major tasks performed by non-supervisory and supervisory personnel in general merchandise stores, specifically: SIC 531, department stores; SIC 533, limited price variety stores; and SIC 539, general merchandise stores. Work done by management personnel is excluded.

Operational Definitions

Task. A task is conceived as an activity constituting a distinct and necessary part of the work done by an employee. It is a function involving specific acts, procedures, techniques, and judgments. It may be physical, such as pulling and lifting, or it may be mental, such as selecting, arranging, computing, explaining. It may involve combinations of physical and mental work. Some tasks involve changing the nature of materials; others involve only arrangement of materials. Each task has certain distinguishing characteristics:

1. It is recognized, usually, as being one of the worker's principal responsibilities.

2. It occupies a significant portion of the worker's time.

3. It involves work operations which utilize closely related skills and knowledges.

4. It is performed for some purpose, by some method, according to some standard with respect to speed, accuracy, quality, or quantity. This standard may be derived by the worker himself as a result of experience or it may be set by managers and supervisors in forms of oral, written, or graphic instruction.

Tasks or duties may be considered major or minor, depending on the percentage of total work time involved in their performance. Their simplicity or complexity can be measured in terms of differences in the levels of skills, knowledge, and judgment involved.[1]

Activity. Each major task is divided into activities or actions having a clear identity as part of the task. Each activity is considered to be a single, unitary behavior. The activity is further considered to be the smallest unit of performance having meaning in the major task and involving clearly definable stimuli, processes, and responses.

Non-supervisory employee. A non-supervisory employee is anyone concerned with the actual performance of the tasks constituting major portions of work in retail stores (selling, customer service, stockkeeping, promotion activities, clerical functions, etc.). He may perform routine tasks or perform limited supervisory functions.

Supervisor. A "supervisor" is one who spends over 50 percent of his time in supervisory work. He must be in charge of, and have as his primary duty, the supervision of a recognized unit which has a continuing function.

He customarily and regularly supervises at least two full-time employees or the equivalent. He has authorization to effect or recommend employment, dismissal, promotion, or transfer of the employees he supervises. He regularly and customarily exercises discretionary powers.

Standard industrial classification. The Standard Industrial Classification was developed for use in the classification of establishments by types of activity in which engaged for purposes of facilitating the collection, tabulation, presentation, and analysis of data relating to establishments; and for promoting conformity and comparability in the presentation of statistical data collected by various agencies of the United States Government, state agencies, trade associations, and private research organizations."[2] These classifications are widely used for reporting distributive education enrollments in categories congruent with those used by the Census of Business.

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[1] Defining the Terms Executive . . . Administrative . . . Professional . . . Outside Salesman, Washington: Regulations and Interpretations of the Code of Federal Regulation, Title 29, Part 541, WHPC publication 1029, U.S. Government Printing Office, May 19, 1965.

> SIC 531--Department Stores--Establishments normally employing twenty-five people or more and engaged in selling some items in each of the following lines of merchandise: (1) Furniture, home furnishings, appliances, radio and TV sets; (2) A general line of apparel for the family; (3) Household linens and dry goods.
>
> SIC 533--Limited-Price Variety Stores--Establishments primarily selling a variety of merchandise in the low and popular price ranges such as stationery, light hardware, toys, housewares, confectionery. These establishments frequently are known as "Five and Dime" stores.
>
> SIC 539--General Merchandise Stores--Establishments primarily selling household linens and dry goods, and/or a combination of apparel, hardware, homewares or home furnishings, and other lines in limited amounts. Establishments which meet the criteria for department stores, except as to employment, are included in this classification. Also including Dry Goods Stores (establishments primarily selling sewing and knitting supplies and yarn or any combination of these commodities).[3]

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[2] "Standard Industrial Classification for Use in Distributive Education." (Washington: U.S. Government Department of Health, Education, and Welfare, OE-83013, 1964), p. iii.

[3] *Ibid.*, p. 3.

RELATED RESEARCH AND THOUGHT

Several previous studies are germane to the method utilized for this study. Doris Anita Berry developed a model for vocational curriculum research with her study of "The Role of Office Practice Instruction in the Training for General Office Assignments."[4] She developed job descriptions for nineteen major general office jobs from information provided by employers and personnel managers and tested the validity of these descriptions by interviews with employees. As a result of inconsistencies found between accepted descriptions of the role of general office employees and what they actually do in performance of their tasks, extensive revision was suggested for the office occupations curriculum.

The American Institutes for Research outlines seven steps required to formulate course objectives.[5] Objectives are derived from statements of performances constituting work actually done in specific jobs or job families. Such objectives are translated into curricula by deriving from patterns of performance types and levels of knowledge and capabilities assumed to be essential for effective task performance.

Altman designed research to identify capabilities (skills and knowledges) which are generalizable across a reasonable variety of present and future job requirements.[6] He has described a domain of general vocational capabilities and suggested methodological improvements in the derivation of educational goals for general vocational capabilities.

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[4] Doris Anita Berry, "The Role of Office Practice Instruction in the Training for General Office Assignments" (unpublished doctoral dissertation, Indiana University, 1963).

[5] "Some Suggestions Concerning First Steps in Vocational Analysis" (Pittsburg: American Institutes for Research, Institutes for Performance Technology, Project ABLE, February 5, 1965).

[6] James W. Altman, Research on General Vocational Capabilities (Skills and Knowledges) (Pittsburgh: American Institutes for Research, March, 1966).

Other studies pertaining to the work of retail personnel by Folley,[7] Rhulow,[8] Routson,[9] and Goldberg,[10] provide data on the knowledges necessary for success in retailing occupations.

Peter G. Haines et al. studied the knowledge and competencies needed by teachers of distributive subjects.[11] Textbooks, course syllabi, and instructional materials were analyzed to ascertain content commonly taught in distributive education classes. Judgments of distributive teacher educators regarding the relative importance of content items were obtained.

Lucy C. Crawford is currently studying the technical content competencies essential for teachers of distributive education.[12] Her research design indicates an analysis of competencies needed for entry jobs and for advancement.

Mahoney et al. developed a procedure for measuring management performance.[13] Findings derived from that study are not directly related to this one. However, the technique described for the collection of work descriptions and identification of patterns of performance has direct application.

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[7] John D. Folley, Jr., "Development of a List of Critical Requirements for Retail Sales Personnel from the Standpoint of Customer Satisfaction" (unpublished Master's thesis, University of Pittsburgh, 1953).

[8] D. H. Rhulow, "Training Department Store Employees" (unpublished Master's thesis, University of Nebraska, 1961).

[9] Jack Craig Routson, "An Observational Analysis of Functional Performance of Retail Sales Personnel" (unpublished doctoral dissertation, University of Illinois, 1964).

[10] Herbert B. Goldberg, "Job Performance Evaluations at R. H. Macy and Company" (unpublished doctoral dissertation, University of Illinois, 1962).

[11] Peter G. Haines et al., "Technical Content Competencies Needed by Teachers of Distributive Subjects," National Business Education Quarterly, XXXII (Winter, 1964-65), 38-50.

[12] Lucy C. Crawford, "A Competency Pattern Approach to Curriculum Construction in Distributive Teacher Education," paper presented at American Vocational Association Convention, Miami, December 8, 1965. (Mimeographed.)

[13] Thomas A. Mahoney et al., Development of Managerial Performance . . . A Research Approach, Monograph C-9 (Chicago: Southwestern Publishing Company, January, 1963).

Schultz and Siegel have attacked the analysis of job performance by multidimensional scaling techniques.[14] Palmer and McCormick have analyzed the values and limitations of factor analysis as a job analysis technique.[15] The results of both studies tend to support the view that specific tasks constituting work responsibilities can be identified and that work patterns can be more functionally conceptualized in terms of clusters of tasks. Examples of these techniques are found in Chalupsky's study of clerical jobs,[16] and in Denton and Prien's study of purchasing personnel functions.[17] These studies have aided in formulation of the technique utilized for this study.

C. S. Brigman *et al*., in a study of salesmanship, examined use of critical incident technique.[18] To be critical, an incident must occur in a situation where its consequences are sufficiently definite to leave little doubt concerning its effects. Essentially, the procedure is to obtain firsthand reports, or reports from objective records, of satisfactory and unsatisfactory execution of the task assigned. The cooperating individual describes a situation in which success or failure is determined by specific identifiable causes.

Lucy C. Crawford has reviewed applications of numerous occupation analysis techniques.[19] She analyzed concepts of "competencies" as an approach to distributive education curriculum development. She recommends that approach as a promising means of improving instruction.

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[14] Douglas G. Schultz and Arthur I. Siegel, "The Analysis of Job Performance by Multidimensional Scaling Techniques," *Journal of Applied Psychology*, XLVIII (1964), 329-335.

[15] George J. Palmer, Jr., and Ernest J. McCormick, "A Factor Analysis of Job Activities," *Journal of Applied Psychology*, XLV (1961), 289-294.

[16] Albert B. Chalupsky, "Comparative Factor Analysis of Clerical Jobs," *Journal of Applied Psychology*, XLVI (1962), 62-66.

[17] J. C. Denton and Erich P. Prien, "Defining the Perceived Functions of Purchasing Personnel," *Journal of Applied Psychology*, XLVII (1963), 332-338.

[18] C. S. Brigman *et al*., "Salesmen Helped by Bringing Out Job's Critical Incidents," *Personnel Journal*, XXXVII (April, 1958), 411-414.

[19] Lucy C. Crawford, "Review of Research and Literature on the Competency Pattern Approach to Curriculum Construction or Revision for Distributive Teacher Education" (an independent Master's degree paper, University of Minnesota, Minneapolis, 1964) pp. 27-35.

Marks reports that work in the general merchandise retail category of stores (SIC 53) is the number one ranked occupational objective of distributive education students nationally at the high school, post high school, and adult levels.[20]

The number two ranked occupational objective reported by those enrolled in distributive education was in the general classification of retailing other than the general merchandise retail category.

Thompson reported ranking of employment of 1962-63 cooperative distributive education students in the state of Michigan. The number one ranked type of employing firm was the department store--general merchandise field (SIC 531) with 753 employees.[21] The 1964-65 State of Washington report of Distributive Education High School Cooperative Enrollment by SIC listings showed SIC 531, the general merchandise category, as the number one ranked placement of students.[22]

During 1964-66 in Iowa the general merchandise retail field (SIC 53) had the highest ranked placement of distributive education cooperative part-time trainees. In Michigan, Washington, Iowa, and Ohio the food store, (SIC 54), ranked number two as categories of employment.[23]

Green examined curriculum in vocational distributive education with intent to instruction in distribution and marketing.[24] He sought to determine the job placement of Ohio students in the distributive education cooperative programs and to ascertain what other states were doing to upgrade their distributive education programs. This study indicates both the pattern of high school distributive education curriculum developing in response to the needs set forth in the 1963 Vocational Education Act and the kind of job placement distributive education students receive.

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[20] M. V. Marks, "Distributive Education, Ranking of Enrollments by Occupational Classification," fiscal year 1965 (provisional figures), prepared from preliminary figures supplied by Reports Office, USOE, November 24, 1966.

[21] L. T. Thompson, "The Michigan Distributive Education Program," The Michigan Retailer, 1963 Annual Education Issue (Lansing: The Michigan Retailers Association, 1963), p. 4.

[22] "1965-66 Distributive Education High School Cooperative Enrollment by SIC Listing," (Olympia, Washington: State Board for Vocational Education, May 17, 1966). (Mimeographed)

[23] "Placement of Distributive Education Cooperative Part-Time Trainees, 1965-66," Distributive Keynotes (Des Moines: Department of Public Instruction, 886V-288VE, Summer, 1966), p. 23.

[24] Kenneth V. Green, "A Study in Depth of Curriculum Planning for the High School Distributive Education Curriculum," research report (Bowling Green, Ohio: Distributive Education Department, Bowling Green State University, June, 1965). (Mimeographed.)

The number one ranked placement of cooperative students in the Ohio program was in the department stores.

1. Cooperative distributive education students get their work experience predominately in the retailing field (91%), with the wholesale and service establishments accounting for a minority (9%).

2. Approximately one-fifth of the students were placed in department stores and approximately one-fifth in grocery stores, with only about one-tenth being placed in variety stores. The other retail areas do not have a significant number of placements. This is also true of the wholesale and service areas.[25]

Green Recommends:

1. The curriculum in distributive education should be developed with the occupational goals of the students definitely considered.

2. Business arithmetic, salesmanship, and general business should become a part of the preparatory program for distributive education students in the tenth and eleventh grades.

3. Units of study in the twelfth year cooperative distributive education class should emphasize retail merchandising (buying and selling), sales promotion, and retail mathematics.

4. At least six weeks' time should be devoted to each unit of study in the twelfth year cooperative distributive education class with reference to merchandising, sales promotion, and retail mathematics.[26]

Mason and Haines have provided a brief historical perspective of the distributive education program which establishes the administrative and curricular patterns which undergird current program development.[27]

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[25] Ibid., p. 3.

[26] Ibid., p. 8.

[27] Ralph E. Mason and Peter G. Haines, Cooperative Occupational Education and Work Experience in the Curriculum (Danville, Illinois: The Interstate Printers and Publishers, 1965), pp. 32-36.

They also discussed the application of policies and procedures for organizing and carrying on cooperative distributive education programs of instruction at both the secondary and post high school levels.[28] This extensive treatment of the cooperative part-time distributive education program serves as a foundation to understanding recent developments in the pattern of organization and curriculum.

No matter what type of organizational or administrative program is involved in the distributive education curriculum, it generally includes retail merchandising, sales promotion, retail operations, retail mathematics, economics of distribution, and human relations.

Two recent publications, A Study of Curriculum Development in the High School Cooperative Program[29] and Distributive Education in the High School,[30] suggest the high school distributive education curriculum in terms of organizational patterns and the development of the instructional program.

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[28] Ibid., Chapter 13.

[29] A Study of Curriculum Development in the High School Cooperative Program, Vocational Division Bulletin No. 281, Distributive Education Series No. 28, U.S. Department of Health, Education and Welfare, OE-82000 (Washington: U.S. Government Printing Office, 1960).

[30] Distributive Education in the High School, A Suggested Guide for Administrators and Teachers of Distribution and Marketing (Richmond, Virginia: Richmond Professional Institute, 1965).

METHOD

Development of Tasks and Knowledges Identification Instrument

Recent job descriptions and training manuals from modern retail firms were obtained and analyzed. Research and literature related to the distributive education curriculum and techniques of occupational analysis were examined. Training department personnel of leading-edge retail firms were interviewed to identify patterns of job performance in major categories of work in retail stores. Work categories identified were: selling, stockkeeping, cashiering, receiving-marking merchandise, display, advertising, delivery, recordkeeping, pricing, buying, controlling merchandise, and customer relations.

A questionnaire was designed to obtain facts about the frequency with which non-supervisory and supervisory categories of employees perform various combinations of tasks. Such facts were then analyzed in terms of the types and levels of knowledges essential to satisfactory task performance.

The questionnaire was field tested to identify items that should be added or deleted and to identify effective distribution and collection methods. Fifty-eight employees representing all three SIC classifications participated in testing.

To test the validity of responses, interviews were arranged with a random sample of those who returned questionnaires. Criterion questions selected from within each major task area and questions on the personal data sheets were used in the interviews. Comparison of responses obtained by the two procedures indicated substantial agreement and consistency. It was concluded that responses to the questionnaire provided reliable information. However, results indicated a need for clarification of the term "supervisory personnel." Therefore, four additional items (job title, number of employees supervised, title of immediate supervisor, and major tasks performed) were added to the personal data sheets.

Sample

The total population of this study consists of all employees in all stores in SIC 531, department stores; SIC 533, limited-price variety stores; and SIC 539, general merchandise stores. A parent population of all such stores in King and Pierce Counties, Washington, was identified. This metropolitan area, which includes the cities of Seattle and Tacoma, was chosen because it closely resembles the national population in terms of percentages of stores, and percentages of employees in each SIC category selected.

In the United States as a whole, general merchandise payrolls constitute 15.1 percent of all retail payrolls. In Washington state the corresponding figure is 15.3 percent.[31] In the United States the number of general merchandise establishments is 3.6 percent of all retail establishments. The corresponding percent in Washington is 3.1.[32]

The percentage of employees in the retail trade in the general merchandise field was also comparable. In the United States it was 17.5 percent and 16.7 percent for Washington.[33]

Sixty-two percent of the retail sales in the general merchandise retail field in the state of Washington were made in King and Pierce counties.[34]

Data showing types of establishments employing various numbers of employees during July, August, and September, 1965, were used. Data for those months was selected because it shows the least fluctuation due to temporary employment. Weighted sampling rates for firms and for employees were established.

In order to establish the sampling rate for firms and to determine the number of firms to be sampled, three strata (SIC 531, SIC 533, and SIC 539) of stores were designated with a differing sampling rate from stratum to stratum. Then a second stage was designated with a differing sampling rate for employees in each stratum. The result was a stratified disproportionate two-stage cluster sample selected with unequal sampling rates in the second stage.

Since the stores were originally selected with sampling rates differing from stratum to stratum (disproportionate stratified sampling), it was possible to design the sample to yield self-weighting estimates of population parameters. This procedure was preferred because the sample data yield either unbiased or slightly biased, but consistent, estimates of population without complicated sets of stratum and cluster weights.

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[31] Omar L. Carey _et al._, _Trends in Distribution, Services, and Transportation_, Bulletin No. 41 (Pullman, Washington: Washington State University, Economic and Business Studies, 1966), p. 70.

[32] _Ibid._, p. 69.

[33] _Ibid._, p. 68.

[34] _Ibid._, p. 78.

The total procedure is described technically as a stratified disproportionate two-stage sample selected with unequal sampling rates in the second stage. The steps followed in making the sample are described in Sampling and Statistics Handbook for Surveys in Education.[35]

Thirty-three out of 234 firms and 900 out of 13,643 employees were sampled.

Table 1, page 16, is the model used for determining the number of employees sampled and the probability of selecting a particular employee in each stratum. It is a theoretical model based on a population of employees estimated from data which listed employment in all divisions of the firms for July, August, September, 1965. The actual number of employees sampled in each stratum (SIC 531 = 708; SIC 533 = 59; SIC 539 = 80; Total = 847) reflects adjustment to the actual employment data found in the field at the time the survey was taken.

SIC 531, Department Stores Sample

Eight of the thirty-seven stores in this classification were randomly selected from an alphabetical list of all stores. In each of the eight stores, one-third of the employees in the merchandising division were selected by a systematic random sampling process from an alphabetical listing provided by the employer.

With endorsement of local Chambers of Commerce, the author personally contacted managers or personnel directors.

Within each firm, management assigned a coordinator responsible for assisting in selection of employees who would complete questionnaires.

Non-Supervisory Employee Sample

Within each firm the first employee from an alphabetical listing was chosen by assignment of a pre-selected random number from a set of 1-3. Then a stratified random sample was completed by selecting every third employee within the merchandising division. Numbered questionnaires were distributed to each selected non-supervisory employee and each selected supervisory employee. Coordinators were provided check sheets designed to facilitate check-off of completed questionnaires. At this point responsibility for distribution, collection, and transmittal of questionnaires to the researcher was entirely the responsibility of the in-store coordinators. Where necessary, the researcher made follow-up phone calls.

Supervisory Employee Sample

Supervisory-level personnel were identified by the store managers. The accuracy of these selctions was verified by checking responses to Items Nos. 2, 16, 17, and 18 on the personal data sheets attached to the questionnaires.

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[35] Sampling and Statistics Handbook for Surveys in Education (Washington: Research Division of the National Education Association, 1965), pp. 390-395.

TABLE 1

DATA USED IN SELECTING A STRATIFIED DISPROPORTIONATE TWO-STAGE CLUSTER SAMPLE OF EMPLOYEES IN SIC 531, SIC 533, AND SIC 539, IN KING AND PIERCE COUNTIES, WASHINGTON, JULY, 1965

SIC	Firms	No. Firms Sampled	Sampling Rate for Firms	Emp. (Est.)	Sampling Rate for Emp.	No. of Emp. Sampled	Prob. of Selecting a Particular Employee
531	37	8	0.21	11,516	.33	760	.066
533	81	10	0.13	1,164	.50	77	.066
539	116	15	0.13	963	.50	63	.066
Totals	234	33		13,643		900	

All eight stores identified by the original random selection agreed to participate. The actual number of employees, 4,788, as of June, 1966, and the number employed in the merchandising division, 2,196, were listed for comparison with our estimated population of 5,040 employees. A total of 562 employee-level and 146 supervisory-level forms were distributed in SIC 531, department stores.

SIC 533, Variety Stores and SIC 539, General Merchandise Stores Sample

Ten of the 81 firms in SIC 533 and fifteen of the 116 firms in SIC 539 were randomly selected from an alphabetical list of all stores in these strata of the population. In each store one-half of the employees were selected by a stratified random sampling process from an alphabetical listing provided by the employer.

The manager was contacted by one of four trained interviewers, each assigned to cover specific firms. A letter describing the research, seeking assistance from the management, and introducing the interviewer as a member of the University's research staff preceded the scheduled meeting.

To distribute questionnaires to SIC 533 and SIC 539 stores, four distributive education coordinators from high schools and junior colleges in the Seattle and Tacoma area served as interviewers. They participated in a four-hour training project designed to teach them appropriate procedures for gaining management cooperation, randomly sampling withing the firms, administration and collection of questionnaires, and follow-up.

Each interviewer was given a packet containing a brief statement of the purposes of the project and a set of detailed instructions for selection of store samples, distribution, and collection of the forms.

The first employee selected on the alphabetical listing was chosen by the assignment of a pre-selected random number. Then a stratified random sample was completed by selecting every other employee performing functions normally assigned the merchandising division.

Numbered questionnaires were distributed to each selected non-supervisory employee and to each supervisor either by the interviewer or by the manager. The interviewer then either waited for the completed questionnaires or returned the same day to pick them up. In cases where the selected person was not on the job, a later call was made.

Forty-eight non-supervisory-level and eleven supervisory-level questionnaires were distributed to the ten selected stores in SIC 533.[36]

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[36] One firm of the original ten selected in SIC 533 from the master list of firms dated July, 1965, was no longer in operation. One firm declined to cooperate in the survey. Therefore, the next firms on the random order list were selected.

TABLE 2

NUMBERS AND PER CENTS OF QUESTIONNAIRES DISTRIBUTED AND RETURNED BY STANDARD INDUSTRIAL CLASSIFICATION

SIC	Non Supervisor			Supervisor			Total		
	No. Distributed	Returned		No. Distributed	Returned		No. Distributed	Returned	
		No.	%		No.	%		No.	%
531	562	440	78	146	114	78	708	554	78
533	48	46	95	11	11	100	59	57	97
539	62	59	95	18	18	100	80	77	96
Total	672	545	81	175	143	82	847	688	81
Less unusable returns		61			18			79	
Total	672	484	72	175	125	71	847	609	72

Comparison was made between the estimated number of employees (280) as of July, 1965, which included employees in all divisions, the total number employed as of June, 1966 (201), when the survey was taken and the number (114) performing tasks normally associated with the merchandising division.

Sixty-two non-supervisory-level and eighteen supervisory-level questionnaires were distributed to the fifteen selected stores in SIC 539.[37] The same procedures as used in SIC 533 were used for selection of the employees sampled. (See Table 2, page 18.)

A total of 672 non-supervisory-level and 175 supervisory-level questionnaires were distributed to all strata.

Returns were checked off on the original distribution list. Follow-up procedures were pursued by the in-store coordinators.

Returns

In all three SICs a total of 688 (81 percent) of the questionnaires were returned. Seventy-nine were unusable.

A total of 609 (72 percent) usable forms are the basis for the findings that follow. This constituted a sample with a confidence level of .95 and the error in proportion is not more than 5 percent.

Data was processed by computer.

Analysis of the Data

The significance of the difference between expected and received returns among three strata was tested by the formula for the test between two independent proportions.[38] A standard score was calculated for the largest difference between any two categories with $Z = 3.16$. This indicates an alpha level greater than .01. That is, the chances are greater than 99 out of 100 that the differences are the result of true differences in the population and not rhe result of sampling procedures.

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[37] One firm of the original fifteen selected in SIC 539 from the master list of firms dated July, 1965, was no longer in operation. Two firms were scratched because they employed no personnel at the time the sample was taken. One firm agreed to participate, but after the questionnaires remained on the employer's desk during four days, the interviewer picked them up on his second follow-up call. In each case the next firm on the random order list was selected.

[38] George A. Ferguson, *Statistical Analysis in Psychology and Education*, 2d edition (New York: McGraw-Hill, Inc., 1966), p. 177.

Tests of the differences between proportions of "Yes" responses between standard industrial classifications and between non-supervisory and supervisory personnel are made by the procedures outlined by Ferguson.[39]

These tests indicate an alpha level of .01 (Z = 2.82) for the non-supervisory responses in all strata of stores. That is, the chances are 99 out of 100 that differences are due to true differences in the population and not due to sampling technique. In the supervisory category, an alpha level of .05 (Z = 2.0) was obtained. This indicates that in 95 out of 100 cases any differences are due to true differences in the population and not to the sampling technique.

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[39] Ibid., p. 178.

RESULTS

Frequency counts indicating tasks performed by general merchandise retail personnel are presented in Table 3 (pp. 22-33) and Table 4 (pp. 34-43). Data on Tables 3 and 4 show variations in the frequency with which supervisory and non-supervisory employees in each of the three classifications of stores perform specific activities constituting major types of retailing tasks. Table 5 (pp.49-51) shows the sex, age, occupational training, education levels, experience and job mobility of respondents.

TABLE 3

RANK ORDER OF PER CENTS OF NON-SUPERVISORY PERSONNEL IN SIC 531, 533, AND 539 PERFORMING TASKS

MAJOR TASK	N = 484		N = 391		N = 38		N = 55	
	Total No.	%	531^b No.	%	533^c No.	%	539^d No.	%
Selling								
1. Greet the customer and determine wants and needs	459	95	372	95	33	87	54	98
2. Assist customers in decision making	441	91	356	91	33	87	52	95
3. Hear and handle complaints or refer to supervisor	434	90	352	90	31	82	51	93
4. Suggest additional or related items for sale	435	90	351	90	32	84	52	95
5. Evaluate customer's wants and needs	425	88	347	89	28	74	50	91
6. Use sales register and handle money	425	88	341	87	32	84	52	95
7. Serve more than one customer at a time during rush periods	422	87	339	87	29	76	45	98
8. Write sales tickets	420	87	342	88	28	74	50	91
9. Keep counters and fixtures clean and in order	429	87	345	88	33	87	51	93
10. Return merchandise to its proper place in stock	416	86	336	86	29	76	51	93
11. Replenish floor stock from reserve stock	411	85	329	84	32	84	50	91
12. Point out hidden values of merchandise	408	84	331	85	29	76	48	87
13. Confer with supervisor on selling problems	408	84	331	85	28	74	49	89
14. Study literature relating to a product	402	83	329	84	27	71	46	84
15. Help customer handle or try on merchandise	396	82	320	82	31	82	45	82
16. Take phone orders and sell by telephone	395	82	342	88	16	42	37	67
17. Direct customers to other departments and work inter-departmental sales	319	81	313	80	30	79	48	87
18. Translate product knowledge into customer benefits	392	81	319	82	28	74	45	82

TABLE 3-- Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531[b]		533[c]		539[d]	
	No.	%	No.	%	No.	%	No.	%
19. Use a variety of techniques to close sales	394	81	326	83	26	68	42	76
20. Relate company policies to all decisions	391	81	324	83	28	74	39	71
21. Package merchandise	384	79	372	95	33	87	54	98
22. Follow up of sales to insure customer satisfaction and sell additional items	384	79	309	79	28	74	47	86
23. Process merchandise returns and exchanges	381	79	304	78	27	71	50	91
24. Rotate stock to keep first in merchandise in prime selling position	376	78	300	77	30	79	46	84
25. Check stock for damaged or soiled merchandise	369	76	293	75	31	82	45	82
26. Write merchandise return tickets	370	76	307	79	21	55	42	76
27. Explain care of merchandise and demonstrate its uses	356	74	291	74	22	58	43	78
28. Prepare merchandise for layaway	354	73	287	73	29	76	38	69
29. Count and record till and deposit money with cashier	338	70	287	73	24	63	27	49
30. Use company advertising in selling	333	69	270	69	23	61	40	73
31. Arrange stock in selling area and keep record of amounts and variety on hand	325	67	257	66	28	74	40	73
32. Reticket merchandise	331	68	251	64	29	76	51	93
33. Receive stock from supplies or delivery man	299	62	229	59	27	71	43	78
34. Demonstrate merchandise	299	62	240	61	19	50	40	73
35. Approve and accept checks	284	59	214	55	22	58	48	87
36. Use trade-ups with customers	273	56	225	58	26	68	22	40
37. Order and replenish departmental supplies	266	55	210	54	23	61	33	60
38. Construct departmental merchandise display	251	52	192	49	21	55	38	69
39. Determine amounts of credit charges or layaway charges	240	50	188	48	18	47	34	62
40. Fill out mail orders and catalog orders	234	48	208	53	9	24	17	31
41. Train new sale people	222	46	177	45	16	42	29	53

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = [illegible]	
	Total		531[b]		533[c]		539[d]	
	No.	%	No.	%	No.	%	No.	%
42. Keep customer records in order to build up a clientele or following	208	43	180	46	7	18	21	38
43. Write up orders for routine reorders of merchandise	195	40	140	36	26	68	29	53
44. Gift wrap packages	183	38	152	39	17	45	14	26
45. Prepare daily report forms	178	37	153	39	10	26	15	27
46. Maintain stock control records	181	37	148	38	13	34	20	36
47. Make competitive shopping trips to other stores	159	33	124	32	14	37	21	38
48. Make written forms and reports to supervisor	150	31	114	29	12	32	24	44
49. Supervise sales personnel	123	25	99	25	5	13	19	35
50. Cover counters and garments at night	71	15	47	12	7	18	17	31
51. Schedule hours and duties of other salespeople	65	13	48	12	4	11	13	24
Keeping and Counting Stock								
52. Keep counters and display fixtures clean and attractive	414	86	331	85	33	87	50	91
53. Inform responsible person when stocks are low	418	86	335	86	32	84	51	93
54. Keep stock neatly arranged and in order	404	84	322	82	32	84	50	91
55. Arrange selling stock	389	80	313	80	29	76	47	86
56. Arrange stock for counting	372	77	295	75	30	79	47	86
57. Replenish selling stock from reserve stock	370	76	294	75	29	76	47	86
58. Arrange understock and reserve stock	351	73	275	70	31	82	45	82
59. Record price of item on proper type ticket	242	50	177	45	20	53	45	82
60. Prominently display volume sellers at key traffic points	326	67	267	68	21	55	38	69
61. Count and record stock	313	65	255	65	22	58	36	66
62. Unpack and assemble merchandise	301	62	236	60	18	47	47	86
63. Prepare merchandise for sales floor	298	62	234	60	19	50	45	82
64. Add long columns of figures	297	61	238	61	20	53	39	71
65. Re-mark merchandise for special sales events	265	55	191	49	27	71	47	86

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531[b]		533[c]		539[d]	
	No.	%	No.	%	No.	%	No.	%
66. Record price of item on proper type ticket	242	50	177	45	20	53	45	82
67. Prepare rejected merchandise for return to supplier	234	48	179	46	16	42	39	71
68. Deliver packaged merchandise to store exit for customer pickup	215	44	171	44	10	23	34	62
69. Multiply and extend figures	210	43	164	42	16	42	30	55
70. Collect information, obtain facts and ideas, and present them in clear, logical order	186	38	140	36	16	42	30	55
71. Order special merchandise from catalog	164	34	122	31	13	34	29	53
72. Prepare stock reports for management	158	33	117	30	12	32	29	53
73. Record sales on unit control records	142	29	117	30	6	16	19	35
74. Maintain stock control cards	112	23	183	21	11	30	18	33
75. Schedule stock counts	104	22	76	19	9	24	19	35
76. Correspond with suppliers about adjustment on merchandise received	87	18	54	14	6	16	27	49
77. Fill salesmens' order for stock for delivery	87	18	62	16	7	18	18	33
78. Handle computer punch tickets	60	12	48	12	9	24	3	6
Operating Checkstand and Sales Register								
79. Greet customers	424	88	339	87	31	82	54	98
80. Make change	405	84	325	83	30	79	50	91
81. Receive checks from customers	394	81	322	82	22	58	50	91
82. Package merchandise	389	80	309	79	30	79	50	91
83. Use charge plates	389	80	336	86	13	34	40	73
84. Accept and process merchandise returned by customers	375	78	298	76	27	71	50	91
85. Get credit department approval on non-routine credit purchases	366	76	308	79	16	42	42	76
86. Record charge sales	354	73	294	75	16	42	44	80
87. Use communications equipment; telephone, teletype, dictation equipment, loudspeaker, etc.	336	69	270	69	18	47	48	87
88. Check out register at end of day	329	68	283	72	21	55	25	46
89. Replace sales register tapes	314	65	246	63	30	79	38	69

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531^b		533^c		539^d	
	No.	%	No.	%	No.	%	No.	%
90.Record cash sales	302	62	248	63	20	53	34	62
91.Figure daily sales register tally	290	60	254	65	16	42	20	36
92.Record C.O.D. sales	243	50	216	55	4	11	23	42
93.Gift wrap merchandise	177	37	145	37	16	42	16	29
94.Handle received on account and paid out transactions	153	32	109	28	10	26	34	62
95.Handle split tickets, punched tickets, and other unit control devices	148	31	123	32	15	40	10	18
96.Record stock numbers of items sold on the sales register	143	30	114	29	8	21	21	38
97.Prepare technical reports	79	16	61	16	6	16	12	22
Receiving, Checking, and Marking Merchandise								
98.Check condition of merchandise received	261	54	196	50	19	50	46	84
99.Unpack merchandise	239	49	173	44	17	45	49	89
100.Report incorrect orders and damaged stock to supervisor	233	48	174	45	19	50	40	73
101.Distribute merchandise to selling floor and reserve stockroom	210	43	150	38	15	40	45	82
102.Ticket merdhandise	195	40	125	32	22	58	48	87
103.Count merchandise and compare it with invoice and buyer's order to insure agreement as to quality, color, size, and style	187	39	126	32	16	42	45	82
104.Receive merchandise from delivery men and common carriers	183	38	121	31	17	45	45	82
105.Prepare merchandise for delivery to sales floor	154	32	95	24	13	34	46	84
106.Prepare right type of ticket with necessary information for each item received	126	26	76	19	13	34	37	67
107.Mark tickets using store's coding systems for prices, stock numbers, and dating	125	26	75	19	13	34	37	67

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531[b]		533[c]		539[d]	
	No.	%	No.	%	No.	%	No.	%
108. Work with fractions, decimals, and percentages in determining prices to be marked on merchandise	114	24	65	17	15	40	34	62
109. Determine price to be marked on merchandise from buyer's or merchandise manager's information	101	21	53	14	13	34	35	64
110. Correspond with suppliers concerning returns and adjustments	80	17	46	12	8	21	26	47
111. Process packing lists	74	15	39	10	6	16	29	53
112. Keep receiving room tools and equipment in order	70	15	30	8	9	24	31	56
113. Keep receiving room clean and orderly	66	14	29	7	5	13	32	58
114. Prepare insurance forms on damaged merchandise received	20	4	7	2	4	11	9	16
Delivery								
115. Prepare delivery sales tickets	204	42	178	46	6	16	20	36
116. Prepare and record C.O.D. sales	195	40	174	45	3	8	18	33
117. Package merchandise and take to delivery department	191	40	160	41	7	18	24	43
118. Figure postage rates	183	38	168	43	2	5	13	24
119. Fill in standardized delivery forms	160	33	136	36	6	16	15	27
120. Figure delivery cost from schedules	143	30	127	33	2	5	14	26
121. Figure delivery dates from schedules	141	29	121	31	4	11	16	29
122. Figure least expensive routing and carrier on deliveries	58	12	45	12	1	3	12	22
123. Suggest additional related purchases when delivering goods	47	10	35	9	6	16	6	11
124. Collect on C.O.D. delivery	30	6	19	5	2	5	9	16

TABLE 3--Continued

	N = 434		N = 391		N = 38		N = 55	
	Total		531[b]		533[c]		539[d]	
	No.	%	No.	%	No.	%	No.	%
125. Install delivered goods in home	11	2	5	1	2	5	4	7
Keeping Accounts and Records								
126. Use communications equipment, telephone, teletype, dictation equipment, etc.	226	47	172	44	16	42	38	69
127. Read and apply tax charts	216	45	168	43	17	45	31	56
128. Record stock count information in proper book	133	28	103	26	13	34	17	31
129. Record inventory records in proper form	95	20	70	18	7	18	18	33
130. Prepare daily sales sheets by department or employee	91	19	76	19	2	5	13	24
131. Record daily salés in unit control forms	89	18	75	19	3	8	11	20
132. Collect information and prepare reports in clear, logical manner	74	15	52	13	5	13	17	31
133. Record receipts and payment in proper amounts	59	12	34	9	5	13	20	36
134. Keep current files of invoices and purchase orders	57	12	35	9	3	8	19	35
135. Keep records and copies of store advertisements	52	11	38	10	0	0	14	26
136. Record and report federal and state taxes	55	11	38	10	6	16	11	20
137. Take and file customer credit applications and references	54	11	29	7	4	11	21	38
138. Record invoice information inproper record forms	52	11	28	7	4	11	20	36
139. Record sales register tapes	55	11	40	10	3	8	12	22
140. Keep customer credit records of charges and payments	44	9	18	5	7	18	19	35
141. Figure withholding tax and other deductions	35	7	21	5	5	13	9	16
142. Prepare sales register stock control tapes for transmittal to computer center	29	6	22	6	2	5	5	9
143. Record time clock data on payroll forms	23	5	17	4	2	5	4	7

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531^b		533^c		539^d	
	No.	%	No.	%	No.	%	No.	%
144.Compute payroll	20	4	11	3	2	5	7	13
145.Prepare key punched stock control tickets for transmittal to supplier	20	4	16	4	2	5	2	4
Computing Information Using Mathematics Skills								
146.Figure discounts and datings	156	33	114	29	13	34	29	53
147.Figure fractions and decimals	142	29	91	23	18	47	33	60
148.Work with percentages	136	28	12	21	19	50	35	64
149.Figure cash and trade discounts	90	19	65	17	8	21	17	31
150.Use transportation rate schedule	61	13	51	13	1	3	9	16
151.Use formulas for markup and markdown	61	13	36	9	6	16	19	35
152.Use transportation costs and terms of sale in computing costs of merchandise	53	11	35	9	2	5	16	29
153.Use accounting system based on retail price	40	8	19	5	2	5	19	35
154.Figure gross margin percentages	35	7	22	6	0	0	13	24
155.Calculate turnover rate	29	6	14	4	2	5	13	24
156.Compute stock to sales ratio	27	6	17	4	0	0	10	18
157.Analyze charts and graphs	27	6	16	4	1	3	10	18
158.Compute factors which affect gross margin	25	5	12	3	1	3	12	22
159.Compute open to buy	25	5	17	4	0	0	8	15
Planning and Arranging Interior and Window Displays								
160.Set up departmental displays of sales items	223	46	166	43	19	50	38	69
161.Prepare or assemble items for display	193	40	131	34	20	53	42	76

TABLE 3--Continued

	N = 434		N = 391		N = 38		N = 55	
	Total		531[b]		533[c]		539[d]	
	No.	%	No.	%	No.	%	No.	%
162. Make selling displays	189	39	133	34	19	50	37	67
163. Dismantle displays and return merchandise to stock	186	38	131	34	18	47	37	67
164. Coordinate pieces and accessorize merchandise to be displayed	156	32	100	28	16	42	30	55
165. Coordinate displays of advertised featured merchandise	134	28	92	24	13	34	29	53
166. Gather merchandise for use in displays, keep records of the items, and return to stock	123	25	87	22	11	29	12	46
167. Select appropriate theme, color scheme, and type of fixture	106	22	70	18	12	32	24	44
168. Dress mannequins for display	93	19	64	16	11	29	18	33
169. Use and service display equipment (mannequins, sign holders, sign printers, staplers, saws, paint equipment, etc.)	33	41	28	28	5	50	8	50
170. Plan seasonal display themes	86	18	57	15	9	24	20	36
171. Select time and place for each display	77	16	44	11	11	29	22	40
172. Dress showcase	77	16	55	14	4	11	18	33
173. Make departmental signs	72	15	32	8	12	32	28	51
174. Put up interior store decorations	61	13	22	6	13	34	26	47
175. Clean store windows	50	10	14	4	7	18	29	53
176. Schedule displays for department	43	9	24	6	2	5	17	31
177. Trim show windows and set up displays	41	9	18	5	4	11	19	35
178. Purchase supplies for displays	34	7	12	3	5	13	17	31
179. Design layout of each display	32	7	12	3	3	8	17	31
180. Make background pieces	35	7	14	4	6	16	15	27
181. Cover displays at night	33	7	15	4	3	8	15	27
182. Train display personnel	17	4	7	2	1	3	9	16
183. Develop a display budget	12	3	4	1	1	3	7	13

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531^{b}		533^{c}		539^{d}	
	No.	%	No.	%	No.	%	No.	%
Planning, Preparing, and Placing Advertisements								
184. Determine consumer demand for store's products	56	12	36	9	6	16	16	29
185. Evaluate effectiveness of ads in terms of sales	60	12	34	9	4	11	22	40
186. Coordinate displays and advertisements	52	11	34	9	3	8	15	27
187. Use other store display and selling areas in conjunctio with advertising	45	9	26	7	5	13	14	26
188. Use telephone to advertise	41	9	33	8	1	3	7	13
189. Keep copies of all ads	43	9	32	8	0	0	10	18
190. Supervise work of other employees	37	8	20	5	1	3	16	29
191. Proofread ads	37	8	28	7	1	3	8	15
192. Secure or prepare illustrations	25	5	11	3	1	3	13	24
193. Make basic layout plans	19	4	11	3	1	3	7	13
194. Write newspaper copy	14	3	9	2	0	0	5	9
195. Plan advertising program and schedule	14	3	10	3	0	0	4	7
196. Use commercial mat services	12	3	7	2	0	0	5	9
197. Write headlines	10	2	5	1	0	0	5	9
198. Prepare advertising budget	8	2	6	2	0	0	2	4
199. Price advertising in various media	11	2	5	1	0	0	6	11
200. Use various type styles in copy	9	2	6	1	0	0	3	5
201. Take advertising copy to media for preparation of proof copies	8	2	5	1	0	0	3	6
202. Plan institutional form for ads designed to establish a store image	7	1	4	1	0	0	3	6
203. Write radio copy	2	0	1	0	0	0	1	2
204. Train other advertising personnel	2	0	1	0	0	0	1	2

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
Buying Merchandise for Resale								
205.Determine customer demand	158	33	114	29	15	40	29	53
206.Shop competitive stores	102	21	73	19	10	26	19	35
207.Go to vendor's shows or to market to make buying decisions	39	8	26	7	1	3	12	22
208.Establish price lines for department and prices for individual items	33	7	17	4	4	11	12	22
209.Analyze selling or operating cost for department, salesperson, line of merchandise, etc.	26	5	14	4	3	8	9	16
210.Negotiate with vendors on terms and discount procedures	25	5	13	3	2	5	10	18
211.Make decisions on hiring, promoting, or firing employees	21	4	12	3	2	5	7	13
212.Compute open to buy amount by department and smaller units	15	3	7	2	0	0	8	15
Pricing Merchandise								
213.Determine markup and markdown	71	15	34	9	8	21	29	53
214.Use the store's pricing policies in determining price of a product	68	14	29	7	9	24	30	55
215.Determine rate of turnover for item, line, or department and apply results to store situation	48	10	25	6	5	13	18	33
216.Determine what factors affect your gross margin	34	7	18	5	1	3	15	27
217.Apply factors of how the price affects the consumer to the pricing of items	36	7	17	4	3	8	16	29
218.Evaluate and determine rate or amount of trade-ins and premiums on various items	18	4	10	3	1	3	7	13

TABLE 3--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
Controlling Merchandise								
219. Match inventory to customer demand	60	12	39	10	3	8	18	33
220. Schedule and conduct inventory	52	11	34	9	4	11	14	26
221. Use various inventory control systems	55	11	38	10	3	8	14	26
222. Forecast sales for a season/year	35	7	23	6	2	5	10	18
223. Compute and use turnover figures	27	6	17	4	1	3	9	16
224. Determine departmental operating costs or selling costs	21	4	10	3	1	3	10	18
225. Estimate expenses and price reductions for a season/year	18	4	11	3	0	0	7	13

TABLE 4

RANK ORDER OF PERCENTS OF SUPERVISORY PERSONNEL IN SIC 531, 533, AND 539 PERFORMING TASKS

MAJOR TASK	Total N= 484		531[b] N = 391		533[c] N = 38		539[d] N = 55	
	No.	%	No.	%	No.	%	No.	%
Delivery								
1. Package merchandise and take to delivery department	70	56	60	61	1	10	9	56
2. Prepare delivery sales tickets	66	53	59	70	0	0	7	44
3. Figure postage rates	62	50	66	53	3	30	7	44
4. Fill in standardized delivery forms	61	49	52	53	5	50	4	25
5. Figure delivery cost from schedules	52	42	47	48	1	10	4	25
6. Figure delivery dates from schedules	51	41	46	47	0	0	7	31
7. Prepare and record C.O.D. sales	49	39	46	47	0	0	3	19
8. Figure least expensive routing and carrier on deliveries	29	23	20	20	2	20	7	44
9. Suggest additional related purchases when delivering goods	20	16	18	18	0	0	2	13
10. Collect on C.O.D. delivery	13	10	7	7	0	0	6	38
11. Install delivered goods in home	7	6	6	6	0	0	1	6
Keeping Account and Records								
12. Use communications equipment; telephone, teletype, dictation equipment, etc.	103	82	83	84	6	60	14	88
13. Record stock count information in proper book	93	74	75	76	6	60	12	75
14. Keep current files of invoices and purchase orders	82	66	61	62	7	70	14	88
15. Collect information and prepare reports in clear, logical manner	81	65	64	65	7	70	10	63
16. Record inventory records in proper form	81	65	62	63	7	70	12	75
17. Prepare daily sales sheets by department or employee	76	61	2	20	7	44	67	68
18. Keep records and copies of store advertisements	70	56	3	30	10	63	57	58
19. Record daily sales in unit control forms	65	52	5	50	8	50	52	53

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
20. Read and apply tax charts	63	50	6	60	9	56	48	49
21. Record sales register tapes	45	36	32	32	5	50	3	50
22. Record invoice information in proper record forms	42	34	24	24	5	50	13	81
23. Record time clock data on payroll forms	37	30	26	26	3	30	8	50
24. Compute payroll	33	26	5	50	8	50	20	20
25. Prepare key punched stock control tickets for transmittal to supplier	20	16	16	16	4	40	0	0
26. Record receipts and payment in proper amounts	20	16	9	9	3	30	8	50
27. Keep customer credit records of charges and payments	12	15	4	40	7	44	4	4
28. Record and report federal and state taxes	19	15	9	9	5	50	5	31
29. Take and file customer credit applications and references	16	13	8	8	2	20	6	38
30. Figure withholding tax and other deductions	13	10	4	4	4	40	5	31
31. Prepare sales register stock control tapes for transmittal to computer center	12	10	0	0	2	13	10	10
32. Work with percentages	106	85	83	84	7	70	16	100
33. Use formulas for markup and markdown	92	74	79	80	2	20	11	69
34. Figure fractions and decimals	88	70	69	70	5	50	14	88
35. Figure gross margin percentages	79	63	61	62	6	60	12	75
36. Use transportation costs and terms of sale in computing costs of merchandise	77	62	61	62	6	60	10	63
37. Calculate turnover rate	76	61	61	62	4	40	11	69
38. Compute stock to sales ratio	70	56	57	58	4	40	9	56
39. Use accounting system based on retail price	69	55	58	59	4	40	7	44
40. Compute factors which affect gross margin	69	55	60	61	3	30	6	38
41. Figure discounts anddatings	68	54	50	51	5	50	13	81
42. Compute open to buy	63	50	56	57	2	20	5	31
43. Figure cash and trade discounts	53	42	36	36	5	50	12	75
44. Analyze charts and graphs	51	41	45	46	2	20	4	25
45. Use transportation rate schedule	45	36	37	37	4	40	4	25

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
Planning and Arranging Interior and Window Displays								
46. Set up departmental displays of sales items	106	85	87	88	5	50	14	88
47. Make selling displays	99	79	80	81	5	50	14	88
48. Prepare or assemble items for display	97	78	77	78	5	50	15	94
49. Coordinate pieces and accessorized merchandise to be displayed	91	73	72	73	5	50	14	88
50. Coordinate displays of advertised and featured merchandise	86	69	66	67	6	60	14	88
51. Gather merchandise for use in displays, keep records of the items, and return to stock	82	66	65	66	5	50	12	75
52. Schedule displays for department	76	61	65	66	3	30	8	50
53. Dismantle displays and return merchandise to stock	72	58	55	56	4	40	13	81
54. Select time and place for each display	71	57	55	56	5	50	11	69
55. Select appropriate theme, color scheme, and type of fixture	68	54	54	55	4	40	10	63
56. Plan seasonal display themes	64	51	45	46	5	50	14	88
57. Make departmental signs	60	48	43	43	3	30	14	88
58. Use and service display equipment (mannequins, sign holders, sign printers, staplers, saws, paint equipment, etc.)	33	41	28	28	5	50	8	50
59. Dress mannequins for display	41	33	31	31	4	40	6	38
60. Dress showcase	33	26	24	24	3	30	6	38
61. Put up interior store decorations	29	23	14	14	5	50	10	63
62. Purchase supplies for displays	15	12	5	5	2	20	8	50
63. Design layout of each display	14	11	7	7	3	30	4	25
64. Trim show windows and set up displays	14	11	5	5	3	30	6	38
65. Clean the store windows	12	10	3	3	2	20	7	44
66. Train display personnel	13	10	5	5	3	30	5	31
67. Make background pieces	9	7	3	3	3	30	3	19
68. Cover displays at night	8	6	5	5	0	0	3	18
69. Develop a display budget	5	4	2	2	2	20	1	6

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
Planning, Preparing, and Placing Advertisements								
70. Evaluate effectiveness of ads in terms of sales	90	72	75	76	5	50	10	63
71. Proofread ads	86	69	70	71	4	40	12	75
72. Coordinate displays and advertisements	83	66	69	70	5	50	9	56
73. Supervise work of other employees	73	58	55	56	7	70	11	69
74. Determine consumer demand for store's products	66	53	51	22	6	60	9	56
75. Keep copies of all ads	66	53	54	55	3	30	9	56
76. Use other store display and selling areas in conjunction with advertising	47	38	36	36	2	20	9	56
77. Plan advertising program and schedule	48	38	41	41	2	20	5	21
78. Make basic layout plans	31	28	22	22	2	20	7	44
79. Write newspaper copy	34	27	25	25	2	20	7	44
80. Price advertising in various media	32	26	24	24	2	20	6	38
81. Secure or prepare illustrations	28	22	18	18	4	40	6	38
82. Write headlines	23	18	18	18	0	0	5	31
83. Take advertising copy to media for preparation of proof copies	23	18	17	17	3	30	3	19
84. Use commercial mat services	20	16	14	14	2	20	4	25
85. Plan institutional form for ads designed to establish a store image	15	12	10	10	1	10	4	25
86. Use various type styles in copy	12	10	6	6	1	10	5	31
87. Use telephone to advertise	9	7	7	7	1	10	1	6
88. Train other advertising personnel	8	6	3	3	1	10	4	25
89. Write radio copy	3	2	2	2	0	0	1	6
Buying Merchandise for Resale								
90. Supervise salespeople	118	93	93	94	8	80	15	94
91. Sell on floor	115	92	91	92	8	80	16	100
92. Make decisions on customer returns and allowances	114	91	92	93	7	70	15	94
93. Instruct salespeople in new merchandise information	113	90	92	93	6	60	15	94
94. Keep up on current trends in buying and styles	111	89	91	92	5	50	15	94
95. Train new salespeople and stock people	110	88	88	89	7	70	15	94

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
96. Supervise inventories	110	88	91	92	6	60	13	81
97. Handle employee complaints	109	87	90	91	6	60	13	81
98. Shop competitive stores	107	86	91	92	3	30	13	81
99. Select buying sources	105	84	84	85	6	60	15	94
100. Analyze selling or operating cost for department, salesperson, line of merchandise, etc.	104	83	85	86	6	60	13	81
101. Determine markdowns	103	82	82	83	6	60	15	94
102. Communicate with vendors about adjustments or returns on incorrect orders	103	82	82	83	6	60	15	94
103. Make decisions on quantities, styles, varieties, etc., to buy	101	81	81	82	6	60	14	88
104. Schedule employee's work week	97	78	81	82	6	60	10	63
105. Plan layout of merchandise	93	74	76	77	4	40	13	81
106. Make routine purchase order decisions, i.e., route, type transport, delivery schecule, dating, amounts	91	73	72	73	5	50	14	88
107. Make routine reports on employee effectiveness to personnel manager	85	68	74	75	2	20	9	56
108. Select and/or buy merchandise for special promotions	84	67	69	70	4	40	11	69
109. Set up basic stock schedules for department and set reorder procedure on basic stock	84	67	70	71	5	50	9	56
110. Maintain and use a unit control system on special merchandise	83	66	72	73	3	30	8	50
111. Establish price lines for department and prices for individual items	80	64	65	66	4	40	11	69
112. Make decisions on hiring, promotion, or firing employees	78	62	64	65	5	50	9	56
113. Schedule buying and delivery dates	77	62	64	65	5	50	8	50
114. Determine department, line, and item markup percentages	74	59	62	61	5	50	8	50
115. Communicate with supplier about returns or adjustments on purchases	72	58	63	64	2	20	7	44
116. Go to vendors' shows or to market to make buying decisions	72	58	59	60	3	30	10	63
117. Use middlemen in some purchases	71	57	55	56	3	30	13	81

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
118. Figure stock to sales ratio	69	55	59	60	4	40	6	38
119. Order from catalogs	67	54	50	51	5	50	12	75
120. Negotiate with vendors on terms and discount procedures	62	50	47	48	3	30	12	75
121. Keep an invoice inventory control	62	50	52	53	3	30	7	44
122. Schedule special promotions	61	49	49	50	3	30	9	56
123. Figure turnover rates by department and by individual item	60	48	53	54	2	20	5	31
124. Compute open to buy amount by department and smaller units	57	46	53	54	1	10	3	19
125. Prepare purchase orders with transportation rates and schedules	61	45	49	50	3	30	9	56
126. Develop advertising plans	51	41	43	43	3	30	5	31
127. Use manufacturers' semi-automated price ticket stock count and reorder process on basic stock	51	41	40	40	4	40	7	44
128. Set advertising schedule and budget	41	33	33	33	3	30	5	31
129. Establish merchandise dating procedure	40	32	29	30	4	40	7	44
130. Establish code systems for marking merchandise	30	24	23	23	2	20	5	31
131. Communicate with insurance companies on claims and adjustments	18	14	5	5	4	40	9	56
Pricing Merchandise								
132. Use the store's pricing policies in determining price of a good	100	80	82	83	5	50	13	81
133. Determine markup and markdown	94	75	76	77	6	60	12	75
134. Consider the costs involved in determining a price for an item	91	73	73	74	5	50	13	81
135. Work with decimals, fractions, and percentages in establishing prices	90	72	70	71	5	50	15	94
136. Use markup and markdown formulas	89	71	77	78	3	30	9	56
137. Use manufacturers' pre-priced merchandise in determining prices	81	65	65	66	5	50	11	69

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
138. Determine what factors affect your gross margin	81	65	66	67	5	50	10	63
139. Determine the cost of merchandise sold	75	60	56	57	6	60	13	81
140. Determine rate of turnover for item, line, or department and apply results to store situation	71	57	56	57	5	50	10	63
141. Use the principles of monopoly pricing, competitive pricing, judgment pricing, and price lining	67	54	53	54	5	50	9	56
142. Use the law of supply and demand in determining initial markup	50	63	49	50	5	50	9	56
143. Figure open to buy	61	49	55	56	1	10	5	31
144. Apply factors of how the price affects the consumer to the pricing of items	55	44	43	43	3	30	9	56
145. Employ the use of elastic and inelastic demand in pricing decisions	52	42	40	40	4	40	8	50
146. Use federal and state laws that apply to pricing goods when establishing prices	51	41	38	38	5	50	8	50
147. Use coding systems in premarking merchandise	46	37	32	32	5	50	9	56
148. Use loss leaders in your promotion and sales policies	34	27	20	20	4	40	10	63
149. Evaluate and determine rate or amount of trade-ins and premiums on various items	19	15	15	15	2	20	2	13
150. Analyze the use of trading stamps and their effect on the item's price	5	6	4	4	2	20	0	0
Controlling Merchandise								
151. Employ a pattern for arranging selling stock, understock, reserve stock	109	87	88	89	7	70	14	88
152. Maintain adequate inventory of most-wanted stock items	108	86	86	87	7	70	15	94

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
153. Employ a pattern for the placemement of merchandise on shelves	100	80	82	83	6	60	12	75
154. Control losses through markdowns	99	79	82	83	7	70	10	63
155. Use unit inventory control systems including periodic and perpetual count systems	92	74	78	79	5	50	9	56
156. Schedule and conduct inventories	91	73	77	78	7	70	7	44
157. Determine current sales trends	88	70	72	73	6	60	10	63
158. Make up basic stock and routine reorder schedules	83	66	69	70	3	30	11	69
159. Match inventory to customer demand	81	65	67	68	4	40	10	63
160. Use purchase request forms	78	62	66	68	3	30	9	56
161. Forecast sales for a season/year	75	60	64	65	5	50	6	38
162. Train stock keepers	72	57	59	60	4	40	9	56
163. Use dollar inventory control system	67	54	58	59	4	40	5	31
164. Determine open to buy	62	50	54	55	3	30	5	31
165. Maintain open to buy records	63	50	57	58	3	30	9	19
166. Determine departmental operating costs or selling costs	59	47	50	51	2	20	7	44
167. Use invoice inventory control system	56	45	49	50	2	20	5	31
168. Use ratios in determining selling cost factors	55	44	48	49	3	30	4	25
169. Make sales forecasts (based on multiple control factors)	55	44	47	48	3	30	5	31
170. Compute and use turnover figures	55	44	47	48	2	20	6	38
171. Use split ticket system for reporting sales	48	38	46	47	2	20	0	0
172. Estimate expenses and price reductions for a season/year	44	35	38	38	3	30	3	19
173. Prepare sales register inventory tapes for transmittal to computer center	22	18	19	19	1	10	2	13
174. Prepare computer punch tickets for transmittal to supplier or computer center	19	15	15	15	4	40	0	0
175. Use computers in figuring and analyzing inventory	9	11	9	9	1	10	1	6

TABLE 4--Continued

	N = 4.4		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
Selling								
176. Interpret store policies to customers and salespeople	119	95	95	96	8	80	16	100
177. Supervise and train sales personnel	110	88	89	90	6	60	15	94
178. Handle routine stockkeeping functions	110	88	84	85	10	100	16	100
179. Complete the personal selling process	102	82	79	80	8	80	15	94
180. Operate and service the cash register	93	74	69	70	8	80	16	100
Keeping and Counting Stock								
181. Prepare stock for special sales events	109	87	88	89	9	90	15	94
182. Arrange and keep stock	108	86	84	85	9	90	15	94
183. Count and record stock	100	80	80	81	6	60	14	88
184. Prepare merchandise for sales floor	99	79	79	80	6	60	14	88
185. Record sales on unit control records	75	60	62	63	6	60	7	44
186. Handle computer punch stock control tickets	33	26	26	26	7	70	0	0
Receiving, Checking, and Marking Merchandise								
187. Determine price to be marked on tickets	89	71	68	69	6	60	15	94
188. Check condition of merchandise received and handle required related correspondence	77	62	54	55	8	80	15	94
189. Receive merchandise and prepare for pricing	43	34	22	22	6	60	15	94
190. Prepare price tickets with necessary information for each item received	37	30	19	19	5	50	13	81
Operate checkstand and Sales Register								
191. Accept and process merchandise returned by customer	111	89	88	89	7	70	16	100
192. Receive and approve checks or credit	110	88	87	88	7	70	16	100

TABLE 4--Continued

	N = 484		N = 391		N = 38		N = 55	
	Total		531		533		539	
	No.	%	No.	%	No.	%	No.	%
193Figure and record sales	97	78	74	75	7	70	16	100
194.Keep required inventory records	96	77	78	79	5	50	13	81
195.Prepare information reports on the checkstand	52	42	40	40	3	30	9	56

[a] All percentages are rounded to the nearest whole per cent.

[b] SIC 531, Department Store;

[c] SIC 533, Limited Price Variety Store;

[d] SIC 539, General Merchandise Store.

DISCUSSION

Major Tasks Performed

Tables 3 and 4 clearly show the tasks that are performed by various percents of non-supervisory and supervisory personnel.

By examination of Tables 3 and 4, and selection of whatever cut-off points curriculum designers, teachers, and counselors deem reasonable, they can easily identify which tasks merit various degrees of emphasis.

Substantial percentages of non-supervisory employees indicated selling, stockkeeping, cashiering, receiving, display, and recordkeeping were major tasks within their job. Substantial percentages of supervisors indicated that they performed all of the above tasks plus advertising, pricing, buying and controlling merchandise. Consequently, identification of knowledge clusters associated with performance of those combinations of tasks is an important element of curricula design.

Tables 3 and 4 show the percentage of respondents in rank order performing each activity. Activities performed by less than 20 percent of the sample were not considered in further identification of types and levels of knowledge essential for task performance. These data indicate that future curriculum development should give priority to types of activities performed by substantial percentages of retail employees.

Substantial percentages of both non-supervisory and supervisory employees sell, keep and count stock, and operate the sales registers. These task are common to the great majority of all retail employees. Smaller percentages of all employees receive, check and mark merchandise, handle some in-store activities associated with interior and window display. All other major tasks studied are performed primarily by supervisory personnel. The tasks of buying, pricing, and controlling merchandise are unique to the supervisors in all strata of stores.

The fact that relatively small numbers within the sample report performance in display and advertising tasks indicates that such work is done almost entirely by specialists. The low percentage of non-supervisory personnel performing advertising activities indicates the performance of this task is not a significant part of their job requirement. Where supervisors indicated substantial percentage of performance in advertising work (Items Nos. 70, 71, 72, 73, 74, 75, 76, and 77) their primary function is of coordinating advertising with the in-store selling program. Those activities associated with preparing and placing advertisements are not performed by substantial percentages of either supervisory or non-supervisory personnel. The technical aspects of preparing and placing advertisements are performed by specialists within the firm or in advertising agencies.

Only three of the activities comprising the major task, "computing information using mathematics skill," were performed by over 20 percent of the non-supervisory personnel. They are: figure fractions and decimals (29 percent), work with percentages (28 percent), figure discounts and dating (33 percent). All other associated activities in this major task were performed by less than 14 percent of the non-supervisory respondents. These three associated activities combine in the hierarchy of mathematics skills to indicate using fractions, decimals, and percentages to figure discounts is an essential part of non-supervisory task performance.

Major percentages of supervisors performed all activities in the tasks of computing information involving mathematics skills. Ability to perform this major task is, therefore, an essential criteria for supervisory-level work. On the contrary, non-supervisory-level employees make limited use of such mathematics capabilities.

Only four of the associated activities in the major task of keeping accounts and records were performed by more than 20 percent of non-supervisory personnel. They were "read and apply tax charts" (45 percent), "record stock-count information in proper book" (28 percent), "record inventory records in proper forms" (20 percent), and "use communications equipment: telephone, teletype, dictation equipment, etc." (47 percent). Major percentages of supervisors performed the recordkeeping functions in the merchandising division. In the smaller general merchandise stores, substantially larger percentages of non-supervisory personnel performed the recordkeeping function than in the department stores or variety stores.

Substantial percentages of both supervisory and non-supervisory personnel performed the in-store activities associated with preparing merchandise for delivery. However, a significantly larger percentage of supervisors performed these activities than did non-supervisors. Numbers of limited-price variety-store personnel reporting performance of this work were so low that it cannot be considered a major part of their work.

Only minor percentages of non-supervisory employees indicated performance of tasks associated with buying, pricing, and controlling merchandise. A significantly larger percentage of employees in the small general merchandise store performed such tasks. But in general, these tasks are not a part of the non-supervisory employees' work.

Within the major task of keeping and counting, percentages of supervisors who keep sales on unit-control records, prepare merchandise for the sales floor, handle computer-punch stock-control tickets, and count or record stock are significantly larger than the percentages of non-supervisory personnel who do so. Larger percentages of supervisors keep inventory records and prepare reports on the checkstand operation than do non-supervisors.

In the department and variety stores there are greater degrees of specialization in task performance in most task areas than in the general merchandise stores. This specialization is most evident in such tasks as receiving and marking merchandise, operating the checkstand, keeping accounts and records, computing information using mathematics skills, displaying, and advertising. A significantly larger percentage of non-supervisory personnel perform these tasks in the general merchandise store than in the other two types.

Activities within the major tasks were considered to be a single unitary behavior. They represented the smallest unit of performance having meaning in the major task and involving clearly definable stimuli, processes, and responses. Therefore, each activity performed by substantial percentages of personnel was directly translatable for curriculum development to a behavioral objective by a statement of the performance expected, the conditions under which performance will take place, and the extent of the performance. As such, the sequence of activities represented statements of the type and levels of knowledge essential for performance of the major tasks.

Distributive Education Background of Respondents

Are there significant differences in the types of tasks performed by employees who had completed a course in distributive education? If so, what are these differences compared to the total retail-employee population in the merchandise division of the general merchandise retail stores?

Forty-six (8.9 percent) of the non-supervisors and six (4 percent) of the 125 supervisors responded that they had studied in distributive education programs.

Non-supervisory employees with distributive education responded noticeably higher to Question No. 6 in the employee profile concerning occupational training received in high school distributive education than did all others. That is, the high school distributive education program had provided the specific occupational training need for 32.6 percent of those non-supervisory employees who had participated in a distributive education program. Only 18.4 percent of the total sample had received occupational training in high school. There was no significant difference between the percentage of supervisors responding who were former distributive education students and all supervisors. However, 17 percent of those with distributive education had received their specialized occupation training in junior college as compared to 2 percent of the total. The other major variation from the total occured in self-training. Only 2 percent of the former distributive education students indicated they were self-taught in their specialized occupational training, while 16 percent of the sample stated they were self-taught. This might mean that skills and knowledges necessary had been learned in distributive education. In all other areas of occupational training, however, there was no significant difference between the proportions of responses by personnel who had taken distributive education and the total group sampled.

Approximately the same proportion of employees with distributive education background had post high school education as others in the sample. This suggested that distributive education neither enhanced nor detracted from the probability of continuing education beyond grade twelve. Thirty percent of the non-supervisors with a distributive education background and 28 percent of the total had thirteen or more years of education. Sixty-six percent of the supervisors with a distributive education background and 59 percent of the total sample had more than thirteen years of education. This suggested that movement into supervisory specialty positions was a function of post high school education, rather than of participation in a distributive education program.

The response pattern by age of those persons with distributive education background was similar in most cases to the other employees. However, 50 percent of the supervisors with distributive education were in the younger age group, compared to 29.6 percent of all supervisors. This may indicate participation in distributive education instruction aided early entry into the supervisory role.

Non-supervisory respondents with distributive education in each stratum of stores were approximately in the same proportion as the total sample. However, at the supervisory level, all distributive education respondents were in the general merchandise store (SIC 539), while the total population was heavily weighted in the department store (SIC 531).

In the major tasks common to both supervisors and non-supervisors in the questionnaire, comparison was made on performance of specific activities between respondents with and without participation in distributive education programs.

Employees with distributive education reported they performed activities in the major task of keeping accounts and records 5.5 percent more than the total employee population. Performance of individual activities followed the same pattern in both groups, i.e., each activity was performed by former distributive education students about 5 percent more than by the total. Those tasks which did show significant variation included: figuring withholding taxes, recording invoice information, and keeping files of invoices and purchase orders.

Employees with distributive education background performed activities in the major task of computing information using mathematical skill 4 percent more than the total employee population. The only mathematics activities that distributive education students performed significantly more than the total group were using fractions, decimals, and percentages.

The distributive education group performed the activities of planning and arranging interior and window displays 5.4 percent more than the total group. Again both groups closely followed the same pattern as to activity performance. Significant differences appeared in dismantling displays, selecting time and place for displays, purchasing supplies for displays, and using and servicing display equipment.

Employees in the distributive education group reported that they performed activities in the major task of planning, preparing, and placing advertisements 2.9 percent more than the total sample. In both the non-supervisory and supervisory categories, so few reported they performed any advertising activities that patterns were impossible to establish. Only those activities defined as coordination of the advertising with the on-floor selling program were performed by substantial percentages of the supervisors. The only significant difference occurred where the total response was so small that one reponse varied the total 3 or 4 percent. It was concluded that knowledges and skills in the tasks of planning, preparing, and placing advertising developed through participation in a distributive education curriculum are not used by those persons at either the supervisory or non-supervisory level when employed in this field.

Table 5 (pp.49-51) presents data showing the age, education, experience, mobility, and sex characteristics of the 484 non-supervisory and the 125 supervisory respondents.

This data throws light on the nature of present day career patterns and the types of education and experience presently associated with non-supervisory and with supervisory positions.

Ages and Sex of Employees

The profile of general merchandise retail employees derived from the personal data section of the questionnaire highlights important and interrelated facts regarding educational background, sex, and job mobility of the respondents (see Table 5).

Sex

Only 18 percent of the non-supervisory category were male, but 58 percent of all supervisors were male. Seventy-nine percent of the supervisors under thirty years of age were male, 21 percent were female. (See Table 6.) This is an inversion of the sex pattern of employees over 50 years of age. In the older group 67 percent of the supervisors are female. These data indicate that women have relatively restricted opportunity for early employment in the supervisory role, yet have opportunity for some vertical job mobility if they choose to make merchandising a career.

TABLE 5

AGE, EDUCATIONAL EXPERIENCE, MOBILITY, AND SEX CHARACTERISTICS OF SUPERVISORY AND NON-SUPERVISORY RETAIL WORKERS PERFORMING MAJOR TYPES OF TASKS.

Response to Employee Profile Questionnaire	Per Cent of Non-Supervisors Responding	Per Cent of Supervisors Responding
	N = 484	N = 125
1.Sources of specialized occupational training		
On the job(not apprentice)	85.3	82.4
Apprentice	3.9	4.0
Military	2.1	2.4
Business college	5.4	10.4
Trade school	4.3	0.8
Correspondence	2.3	0.0
Specialized school	1.7	1.7
High school	18,4	18.4
Junior college	1.9	2.4
Self-taught	15.5	16.0
Other	9.9	21.6
2.The highest grade of school completed		
8 or less	2.5	0.8
9	3.1	1.6
10	5.2	0.0
11	7.0	3.2
12	50.6	35.2
13	11.4	6.4
14	11.4	10.4
15	2.3	4.0
16 or more	5.0	38.4
3.Sex	M	M
	18.4	57.6
	F	F
	81.6	42.4
4.Age		
Under 20	5.2	0.8
20 to 30	15.1	29.6
31 to 50	40.1	42.4
Over 50	38.0	26.4

TABLE 5--Continued

Response to Employee Profile Questionnaire	Per Cent of Non-Supervisors Responding N = 484	Per Cent of Supervisors Responding N = 125
5. Years in present occupation		
Less than 1 year	12.4	8.0
1 to 5 years	27.5	24.0
More than 5 years	58.3	67.2
6. Number of times occupation was changed in the past 5 years		
0 times	76.9	81.6
1 to 2 times	19.0	16.0
3 or more times	2.7	2.4
7. Main emphasis of high school study:		
College prep	32.2	52.8
Vocational	6.2	1.6
Business education	28.5	32.0
Distributive education	8.9	4.0
Scientific	1.2	8.0
General	16.7	0.8
8. Highest level of on-the-job employment training program completed:		
Store procedures	40.7	10.4
Sales training	24.0	6.4
Supervisory training	6.0	6.4
Management training	8.7	68.8
None	15.7	6.4
9. Number of times transferred from one major task to another within firm:		
None	74.4	11.2
1	10.3	30.4
2	4.3	19.2
3	4.8	19.2
4	1.0	8.8
5 to 7	0.4	5.6
8 to 10	0.0	0.8
11 to 20	0.6	4.0

TABLE 5--Continued

Response to Employee Profile Questionnaire	Per Cent of Non-Supervisors Responding N = 484	Per Cent of Supervisors Responding N = 125
10.Number of hours worked per week:		
Less than 20	4.1	0.0
20 to 32	18.0	0.8
More than 32	77.1	99.2
11.Number of employees supervised		
None	83.5	0.8
1 to 5	9.5	35.2
More than 5	3.1	64.0
12.Types of tasks presently performed		
Selling	85.3	80.8
Stockkeeping	56.8	66.4
Cashiering	61.0	32.0
Receiving	26.2	32.0
Display	28.9	55.2
Advertising	5.0	52.8
Delivery	6.2	15.2
Record keeping	26.7	68.0
Pricing	14.7	56.0
Buying	11.8	72.8
Controlling	11.2	74.4
Credit Control	2.5	7.2

TABLE 6

PERCENT OF SUPERVISORS IN EACH AGE BRACKET BY SEX

Sex	Less than 30	30-50	Over 50
Male	79	61	33
Female	21	37	67

Levels of Education

Movement into the supervisory category of employment generally is facilitated by formal education beyond high school. Fifty-nine percent of all supervisors have more than twelve years of education. Thirty-eight percent of the supervisors have sixteen or more years of education.

Since the ultimate purpose of the study is to provide bases for planning distributive education curriculum, it is important to note that the average number of years of education of all supervisors is 14.82 years and that the average number of years of education of supervisors in the less-than-thirty age bracket is 15.46 years. (See Table 7.) This suggests that the practices in hiring for supervisory positions have changed and that some post high school education is an essential requirement for employment in the supervisory category. This further implies that post secondary schools have opportunity to play major roles in preparation of persons for supervisory positions.

TABLE 7

AVERAGE NUMBER OF YEARS OF EDUCATION FOR NON-SUPERVISORY AND SUPERVISORY RESPONDENTS BY AGE GROUP

Age Group	Non-Supervisory	Supervisory
Under 30	12.8	15.46
30 to 50	12.4	13.83
Over 50	11.8	12.45
Mean	12.25	14.82

Current employment practices in this field indicate only limited opportunity for the non-college-bound youth to move from non-supervisory jobs into supervisory or specialty positions. There is a direct relationship between levels of education beyond high school and employment in supervisory and specialty positions. Eighty-two percent of the supervisors less than thirty years of age have thirteen or more years of education. In the thirty-to-fifty age bracket, 58 percent of the supervisors have thirteen or more years of education, while 33 percent of the supervisors over fifty years of age have thirteen or more years of education. (See Figures 1 and 2, pp.54-55 .) These facts have obvious implications for occupational and educational counseling.

Job Mobility

The data indicate that, at present, relatively few non-supervisory personnel move from one type of work to another. Seventy-four percent of the non-supervisory respondents had never transferred from one job to another within a firm, and 85 percent had transferred only one time or not at all.

Mobility of supervisors from one type of work to another within the firm generally appears to be associated with in-firm training programs. Eleven percent of the supervisors had not transferred within the firm, 30 percent had transferred once, 19 percent twice, and 19 percent three times. Sixty-nine percent of the supervisors had participated in one or more on-the-job management training programs.

The ratio of non-supervisory to supervisory personnel within the merchandising categories for the three SICs of stores was quite uniform. (SIC = .25; SIC 533 = .26; SIC 539 = .29; Total = .26) In general there was one supervisor for each four employees.

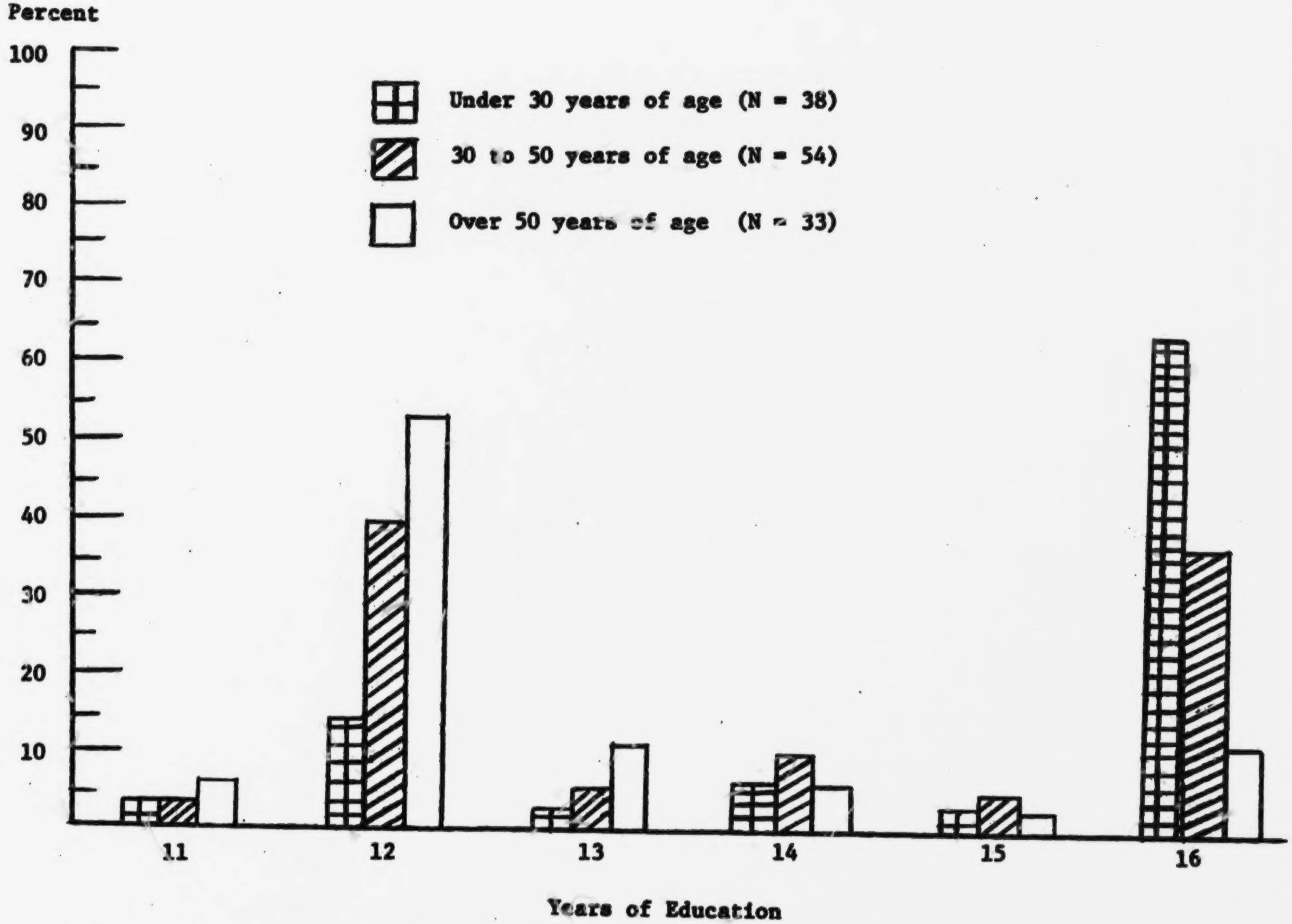

Figure 1. Percent of Supervisors in Each Age Bracket by Number of Years of Education

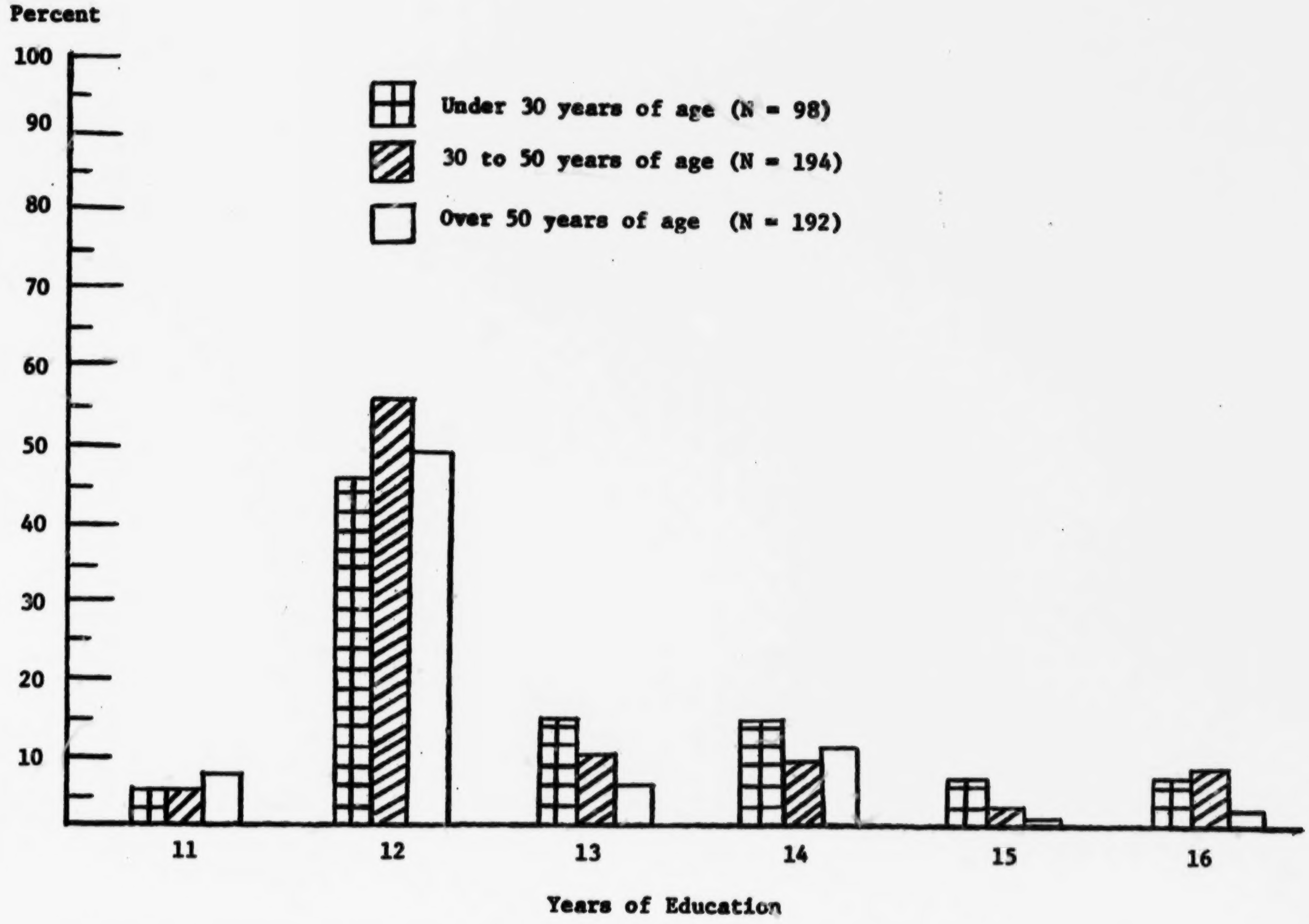

Figure 2. Percent of Non-Supervisors in Each Age Bracket by Number of Years of Education

IMPLICATIONS AND RECOMMENDATIONS

Implications

The overall purpose of this study was to improve vocational education by providing facts and ideas which would help vocational educators make decisions about what curricular content and instructional organization are most likely to be of maximum benefit to non-college-bound youth. Further, the study sought information helpful in the process of making reasoned judgments and enlightened choices about careers and career patterns.

Facts presented about the types of retailing tasks performed and about the age, sex, mobility, and education requirements for the positions suggest minimal levels of curriculum content for pursuit of careers at either the non-supervisory or supervisory level. Further, these facts suggest minimal education experience for youth considering careers at those levels.

The Preparatory High School Distributive Education Curriculum

Facts presented through this study identify a cluster of activities in the major tasks of selling; keeping and counting stock; operating the checkstand and sales register; receiving, checking, and marking merchandise; and preparing merchandise for delivery, which are performed by major percentages of non-supervisory personnel in the general merchandise retail field. The facts also indicate there is little horizontal mobility by non-supervisory employees from one type of work to another within the firms studied and that vertical mobility from the non-supervisory to supervisory category of employment depends (because of current hiring practices within the firms) primarily on participation in a post high school educational program.

These interrelated facts point out clearly that, in the general merchandise retail field, opportunities for non-college-bound youth in general are limited to that category of employment identified in this study as non-supervisory. Further, these threshold jobs are primarily sales and sales-supporting activities with limited opportunity for either horizontal or vertical job mobility. This is a major category of employment within the general merchandise retail field which includes 75 percent of the employees in the three strata of stores studied. These strata of stores represent the number one ranked placement of distributive education students in the cooperative program. The sales and service field represents the second largest field and the fastest growing field of employment.

Facts presented suggest non-college-bound youth are relatively restrained to non-supervisory categories of jobs until they pursue some additional educational goals or have extensive experience. Further, some post high school education is desired for employment in the supervisory level of jobs. Clearly, this data are essential for guidance personnel, teachers, curriculum specialists and students to help each student make his own enlightened choice about career patterns.

These facts suggest a preparatory distributive education curriculum with the instructional program designed around a set of behavioral objectives reflecting those activities performed by substantial percentages of non-supervisory respondents in this study.

The directions indicated for curriculum by this study are toward a detailed depth study and performance of the sales and sales-supporting activities, the basic communications and mathematical skill competencies, economic understanding, and human relations competencies with only a broad understanding of the technical and merchandising competencies. All personnel concerned in the curriculum development process need understand these competencies prepare youth for entry level positions and is a minimal-level curriculum.

Results of other studies of vocational competencies, learning, and strategies of teaching when related to the findings of this study suggest a high school curriculum for non-college-bound youth which would prepare for the non-supervisory position in the general distributive education curriculum. Therefore, a systems approach to curriculum development is suggested. Preliminary studies of the systems approach in the Business Education Department, University of Idaho, indicate possibilities of a one-semester course at the senior year which would prepare for entry and probably success in the non-supervisory jobs. This would allow greater flexibility in the student's senior year than is available through contemporary distributive education programs. Further, it would make distributive education available to a greater number of students, particularly those in the small high school.

The Post High School Supervisory Training Curriculum

Substantial percentages of personnel identified as supervisors within this study regularly perform the cluster of tasks and activities which make up the non-supervisory job. Data do not indicate how frequently they perform the tasks, but only that the task performance is an essential element in their job.

The data further identify the activities within the major tasks of keeping accounts and records, planning and arranging advertisements, buying, pricing, and controlling merchandise which are unique to the supervisory category of employment and which are perfored by substantial percentages of the supervisors. These facts imply that a curriculum pattern should be designed at an appropriate educational level which will prepare youth with the skills, knowledges, and competencies to perform the tasks.

Facts isolated through the personal profile of the supervisors indicate that post high school education has become an essential element in the educational requirements of supervisors.

Analysis of the activities performed by the supervisors show high priority to judgment and decision-making skills, to interpersonal relations, and to activities which are coordination functions. These facts imply that much of the content of the units of instruction within the high school cooperative part-time curriculum which are related to merchandising, sales promotion, merchandise control, buying, pricing, and other technical competencies in retailing would be more appropriate for a post high school distributive education curriculum. Performance of activities encompassed by these units are identified as primarily the function of supervisory personnel. Since some post high school education is important in securing positions at this level, it is suggested that vocational education for performance of these activities should be in a post high school program or as near the termination of the educational preparation for the job as is feasible. In other words, some elements of the subject matter, educational goals, and behavioral outcomes of the contemporary high school cooperative program should be re-scheduled as a post high school program.

The Guidance Literature

Extensive revision of guidance literature concerning the general merchandise retail field seems to be in order. That is, the literature reflects equal opportunity for women, opportunity for movement from threshold entry positions into career type specialty and supervisory jobs, opportunity for non-college-bound persons to move into and through a continuum of jobs representing vertical mobility into and through the supervisory and specialty positions. The facts about the educational background, vertical job mobility, and ratios of employees and supervisors by sex, especially in the age group which more nearly represents current hiring practices, refutes some of this guidance literature. The data in this study also reflect a discrepancy between stated store policy and contemporary hiring practices at the supervisory level. The facts are that, because of contemporary hiring practices, some post high school education is required (83 percent of the supervisors less than thirty years of age have thirteen or more years of education) for employment in and job mobility within the supervisory category of employment. Further, opportunity for employment of men (79 percent of the supervisors less than thirty years of age are male) as supervisors is much greater than for women. This data further indicate there is relatively little movement from the non-supervisory to the supervisory category of employment, and that in the department stores (SIC 531) and variety stores (SIC 533) the non-supervisory job is oriented very closely to sales and sales-supporting activities.

Recommendations

We recommend that:

1. Similar studies be conducted in other types of retailing, wholesaling, and service occupations and by other categories of employment within firms.

2. Similar studies be conducted in selected geographical locations to determine if there are regional differences in the tasks performed by non-supervisory personnel.

3. Comparison be made between the findings of this study and existing curriculum at the high school and post high school levels.

4. Further study be made of the current employment opportunity in supervisory positions for women in the general merchandise retail field to identify the specific types and levels of position where opportunity for employment and job success is greatest, and the personal and educational requirements for these positions.

5. A study of the job mobility patterns of graduates of the cooperative distributive education program be made to analyze whether graduates of this program with no post high school education move into supervisory and specialty positions at an earlier age or a greater rate than do the general population of retail store employees.

6. Distributive education curriculum at the secondary and post secondary level be redesigned based upon the findings of the study. (Prototypes of units of instruction on retailing using a "systems approach" is being developed at the University of Idaho using data abstracted from this study.)

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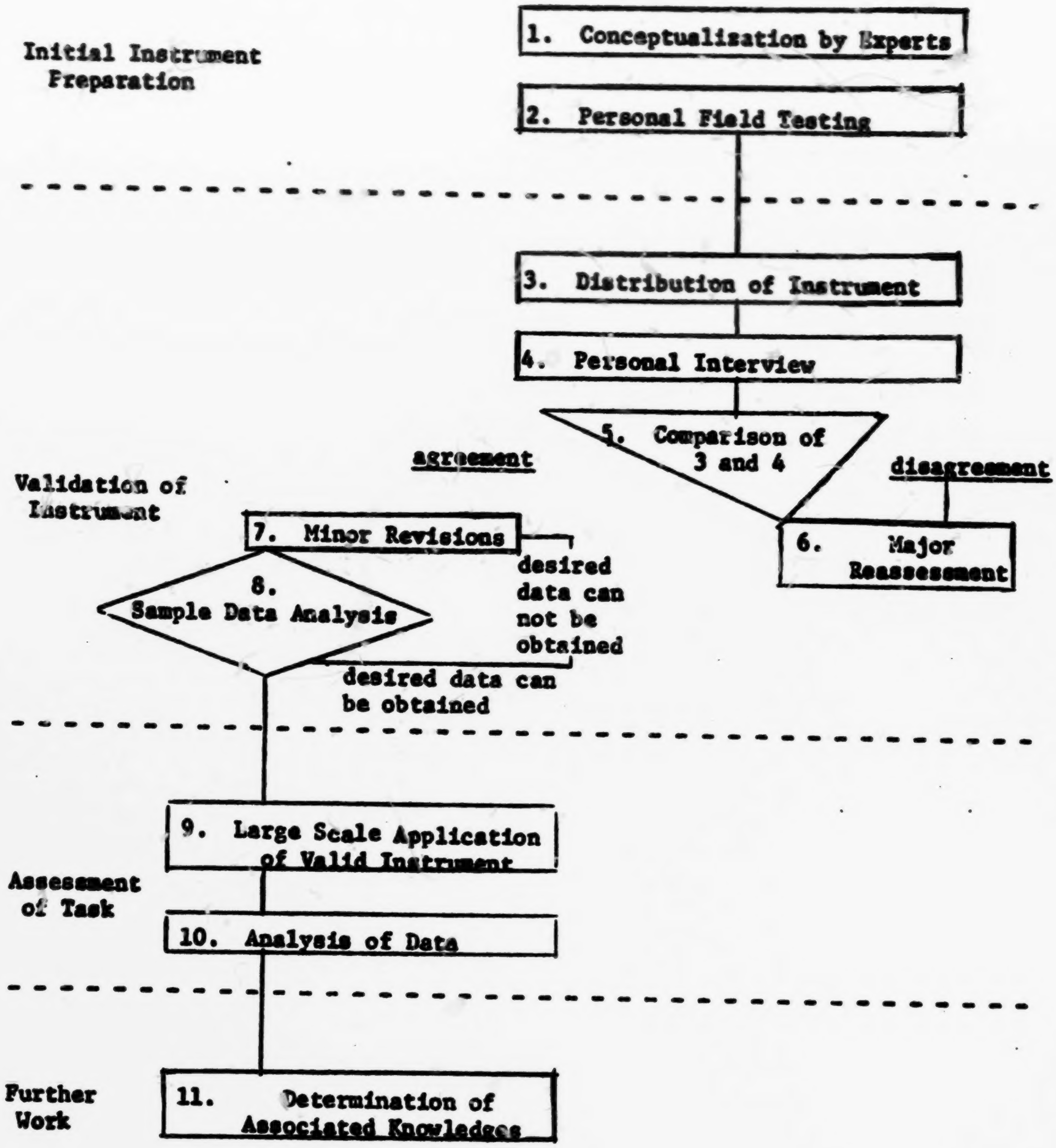
APPENDIX A

FLOW CHART FOR RETAIL TASK ASSESSMENT


Initial Instrument Preparation
1. Conceptualization by Experts
2. Personal Field Testing
3. Distribution of Instrument
4. Personal Interview
5. Comparison of 3 and 4
agreement
disagreement
6. Major Reassessment
Validation of Instrument
7. Minor Revisions
8. Sample Data Analysis
desired data can not be obtained
desired data can be obtained
9. Large Scale Application of Valid Instrument
Assessment of Task
10. Analysis of Data
Further Work
11. Determination of Associated Knowledges

APPENDIX B

TABLE 8

PERCENTAGES OF STORES AND EMPLOYEES IN KING-PIERCE COUNTIES, WASHINGTON, COMPARED TO NATIONAL PERCENTAGES FOR SIC 531, 533, 539

SIC	Number of Stores	Percentage of Stores		Number of Employees (Aug., 1966)	Percentage of Employees	
	King Pierce	King Pierce	National	King Pierce	King Pierce	National
531	37	16	07	11,516	84	70
533	81	35	36	1,164	09	20
539	116	49	57	963	07	10
Totals	234			13,643		

OE 6000 (REV. 9-66)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
OFFICE OF EDUCATION

ERIC REPORT RESUME

ERIC ACCESSION NO.

CLEARINGHOUSE ACCESSION NUMBER

RESUME DATE , June 1968

P.A.

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TITLE

IDENTIFICATION OF MAJOR TASKS PERFORMED BY

MERCHANDISING EMPLOYEES WORKING IN THREE STANDARD INDUSTRIAL CLASSIFICATIONS OF RETAIL ESTABLISHMENTS

PERSONAL AUTHOR(S)

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INSTITUTION (SOURCE) University of Idaho - Department of Education

SOURCE CODE

REPORT/SERIES NO. Final Report No. 20

OTHER SOURCE

SOURCE CODE

OTHER REPORT NO.

OTHER SOURCE

SOURCE CODE

OTHER REPORT NO.

PUBL. DATE July 1968 -

CONTRACT GRANT NUMBER OEG-4-7-070031-1626

PAGINATION, ETC.

1 through 65

RETRIEVAL TERMS

Distributive Education
Retailing Education
Clusters
Job Analysis.

IDENTIFIERS Vo-Tech. Ed. Research and Development Project No. OE7-0031

ABSTRACT

The purpose of this study was to identify major tasks performed by merchandising employees working in three Industrial Classifications of retail establishments. Those classifications are department stores, variety stores, and general merchandise stores. By questionnaire facts were obtained regarding 12 categories of work performed by supervisory and and non-supervivisory personnel. Those categories are selling, stockkeeping, checkstand operation, receiving and marking merchandise, delivery, keeping records, computing, display, advertising, buying, pricing, and merchandise control. From collections of that data percentages of employees performing each category of work were determined. This information will be utilized as bases for identification of clusters of knowledges associated with performance of work done by substantial percentages of employees. We assume that, along with requisite skills, acquisition of such knowledges will help pupils succeed in entry jobs and serve as bases for retraining, occupational mobility, and career-long advancement.